

# 6280

## SELF-PROPELLED WALK BEHIND SCRAPER INSTRUCTION MANUAL



**Read Manual Before Operating Machine**

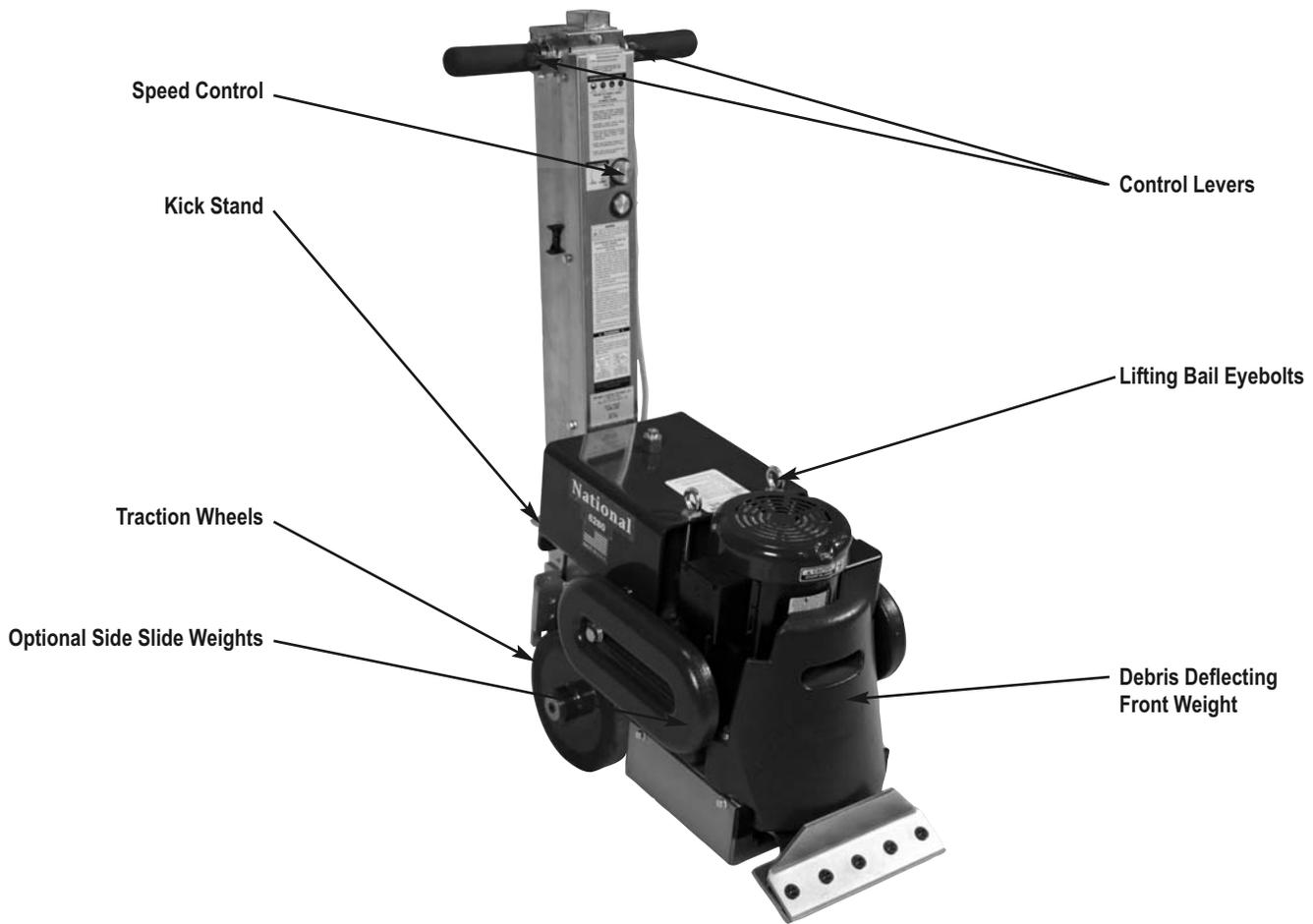


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# Features and Specifications



## FEATURES

**Speed Control Dial-** Adjust the speed of the machine with a simple turn of the dial.

**Kick Stand-** Aides operator in tilting the machine back for easier moving and maneuvering.

**Traction Wheels-** These industrial grade wheels are self-cleaning and disengage for loading/unloading.

**Optional Side Slide Weights-** Applies additional pressure to the scraper head as desired or if more traction is needed, slide them back over the wheels.

**Control Levers-** Simple hand controls propel the scraper both forward and reverse with speed and safety.

**Lifting Bail Eyebolts-** Eases loading/unloading.

**Debris Deflecting Front Weight-** Prohibits material and devris from clogging or obstructing production.

## 6280 SPECIFICATIONS

Width	Height	Length	Weight	Speed	RPM	Voltage	HP	Amps (full load)
13"	41"	27.5"	260 lb. (machine only) 354 lb. (with weights)	10-45 ft./min.	3450	115	1-1/2	13

## GENERAL RULES FOR SAFE OPERATION

**READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE.** Before use, be sure everyone operating this equipment reads and understands this manual as well as any labels packaged with or attached to the machine and components and view the instructional video. Extra copies of the manual and video are available.

1. **KNOW YOUR EQUIPMENT:** Read this manual and view instructional video carefully to learn equipment applications and limitations as well as potential hazards associated with this type of equipment.
2. **GROUND YOUR TOOL:** See Grounding on page 6.
3. **AVOID DANGEROUS ENVIRONMENTS:** Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Remove materials or debris that may be ignited by sparks.
4. **KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered, dark work areas invite accidents.
5. **DRESS PROPERLY:** Do not wear loose clothing. These may be caught in moving parts. When working outdoors, wear rubber gloves and insulated non-skid footwear. Keep hands and gloves away from moving parts.
6. **USE SAFETY EQUIPMENT:** Everyone in the work area should wear safety goggles or glasses complying with current safety standards. Wear hearing protection during extended use and a dust mask for dusty operations. Hard hats, face shields, safety shoes, etc. should be worn when specified or necessary.
7. **KEEP BYSTANDERS AWAY:** Children and other bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the tool or extension cord. Operator should be aware of who is around them and their proximity.
8. **PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris and machine operation.
9. **USE PROPER ACCESSORIES:** Using accessories that are not recommended may be hazardous. Be sure accessories are properly installed and maintained. Do not delete a guard or other safety device when installing an accessory or attachment.
10. **CHECK FOR DAMAGED PARTS:** Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged tools "DO NOT USE" until repaired. A guard or other damaged parts should be properly repaired or replaced. For all repairs, insist on only identical National replacement parts.
11. **REMOVE ALL ADJUSTING KEYS AND WRENCHES:** Make a habit of checking that the adjusting keys, wrenches, etc. are removed from the tool before turning it on.
12. **GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. When scoring or making cuts, always check the work area for hidden wires or pipes. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
13. **AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging it in. Do not use if the power switch does not turn the machine on and off.
14. **DO NOT FORCE EQUIPMENT:** Equipment will perform best at the rate for which it was designed. Excessive force only causes operator fatigue, increased wear and reduced control.
15. **KEEP HANDS AWAY FROM ALL CUTTING EDGES AND MOVING PARTS.**
16. **WEAR GLOVES WHEN CHANGING BLADES.**
17. **DO NOT ABUSE CORD:** Never unplug by yanking the cord from the outlet. Pull plug rather than cord to reduce the risk of damage. Keep the cord away from heat, oil, sharp objects, cutting edges and moving parts.
18. **DO NOT OVERREACH. MAINTAIN CONTROL:** Keep proper footing and balance at all times. Maintain a firm grip.
19. **STAY ALERT:** Watch what you are doing, and use common sense. Do not use when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
20. **STARTING MACHINE:** On/off switch must be in off position before connecting to power source.
21. **UNPLUG EQUIPMENT:** When it is not in use, unplug machine before changing blades, accessories or performing recommended maintenance or when not in use.
22. **MAINTAIN EQUIPMENT CAREFULLY:** Keep handles dry, clean and free from oil and grease. Keep cutting edges sharp and clean. Follow instructions for lubricating and changing accessories. Periodically inspect machine cords and extension cords for damage. Have damaged parts repaired or replaced.

23. **STORE IDLE EQUIPMENT:** When not in use, store in a dry, secured place. Keep away from children. Remove blades when storing.
24. **MAINTAIN LABELS AND NAME PLATE:** These carry important information. If unreadable or missing, contact National for a free replacement.
25. **MACHINE IS HEAVY, DO NOT DROP:** Counter weights are heavy. Take caution when removing or reassembling. Take caution when moving or transporting.

## CHARACTERISTICS OF A DEFENSIVE OPERATOR

### A GOOD OPERATOR IS A “DEFENSIVE” OPERATOR!!

#### QUALITIES INCLUDE:

**Education:** Learns about the machine and the environment.

**Alert:** Stays alert at all times...never lets guard down.

**Skills:** Only performs duties he/she are qualified to do. Always tries to improve.

**Judgment:** Plays it safe. Doesn't take chances.

**Common Sense:** Does the right thing without having to be told. Applies knowledge.

**Recognizes the Hazards:** Maintains alertness. Anticipates danger.

**Understands the Defense:** Knows that safety isn't an accident...it's a thinking person's choice.

**Acts Correctly:** Does not cave in to peer pressure. Performs correctly when supervised or not.

## HYDRAULIC SAFETY TIPS

### MAINTAINING A SAFE WORK ENVIRONMENT

Establishing a safe working environment in and around your hydraulic equipment is just common sense. The easiest and most effective way to avoid problems is to make sure associates understand their equipment, know how to operate it safely and recognize the danger it represents if handled carelessly. A few things you must be aware of include:

1. **PRESSURE:** Hydraulic fluid under pressure is dangerous and can cause serious injury.
2. **FLAMMABILITY:** When ignited, some hydraulic fluids can explode and/or cause fires.
3. **MECHANICAL:** Hydraulic fluid creates movement, which causes parts of your equipment to move or rotate. Always be aware of what you are doing.
4. **MOISTURE:** Use caution when operating in wet or high moisture conditions. Make sure all electrical fittings, switches, cords plus strain reliefs are in good condition. Always unplug when not in use and when doing any service work.
5. **ELECTRICAL:** Faulty wiring can also be an electrical hazard. A regular preventive maintenance program should always include a wiring check. Unplug batteries and/or charger before serving.
6. **TEMPERATURE:** Because this machine operates at a relatively low pressure, overheating is not common. If surface of tank becomes too hot to touch by hand (above 130°), shut off machine and allow to cool off.

### PRESSURE

Our system runs at or below 2,000 psi. Never look for a leak when unit is under pressure. Using your hand could cause serious injury. A few common ways to encounter hydraulic fluid under pressure include:



**CAUTION:** NEVER USE YOUR HANDS TO CHECK FOR LEAKS OVER HOSE OR HYDRAULIC CONNECTIONS. USE A PIECE OF CARDBOARD TO LOCATE A PRESSURIZED LEAK. FOR LOW PRESSURE LEAKS (DRIPS), USE A RAG TO CLEAN THE AREA AND DETERMINE WHERE THE LEAK ORIGINATES.

1. **PINHOLE:** Fluid under pressure can cause serious injury. It can be almost invisible escaping from a pinhole, and it can pierce the skin into the body. Do not touch a pressurized hydraulic hose assembly with any part of your body. If fluid punctures the skin, even if no pain is felt, a serious emergency exists. Obtain medical assistance immediately. Failure to do so can result in loss of the injured part or death.

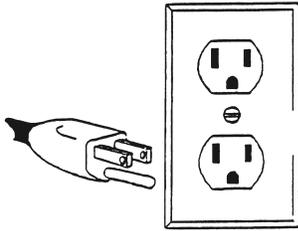


FIG. A

## PRESSURE (CONTINUED)

2. **LEAK:** Keep fittings and hoses tight. Only check and service when not under pressure. Leaking hydraulic fluid is not only unsightly, it's hazardous. In addition to making workplace floors slippery and dangerous, leaks also contaminate the environment. Before cleaning an oil spill, always check EPA, state and local regulations.
3. **BURST:** Whether due to improper selection or damage, a ruptured hose can cause injury. If it bursts, a worker can be burned, cut, injected or may slip and fall.
4. **COUPLING BLOW-OFF:** If the assembly is not properly made or installed, the coupling could come off and hit or spray a worker, possibly resulting in serious injury. Never operate machine without guards.

## FLAMMABILITY

With the exception of those comprised primarily of water, all hydraulic fluid is flammable when exposed to the proper conditions (including many "fire-resistant" hydraulic fluids).

Leaking pressurized hydraulic fluids may develop a mist or fine spray that can flash or explode upon contact with a cause of ignition. These explosions can be very severe and could result in serious injury or death.

Precautions should be taken to eliminate all ignition sources from contact with escaping fluids, sprays or mists resulting from hydraulic failures. Sources of ignition could be electrical discharges (sparks), open flames, extremely high temperatures, sparks caused by metal-to-metal contact, etc.

## HYDRAULIC FLUID

Only use Texaco Rando 46 Hydraulic Oil or Compatible Fluid like IS032. Non-compatible fluids could cause damage to unit or serious injury.

## GROUNDING



**WARNING:** IMPROPERLY CONNECTING THE GROUNDING WIRE CAN RESULT IN THE RISK OF ELECTRIC SHOCK. CHECK WITH A QUALIFIED ELECTRICIAN IF YOU ARE IN DOUBT AS TO WHETHER THE OUTLET IS PROPERLY GROUNDED. DO NOT MODIFY THE PLUG PROVIDED WITH THE TOOL. NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG. DO NOT USE THE TOOL IF THE CORD OR PLUG IS DAMAGED. IF THE PLUG WILL NOT FIT THE OUTLET, HAVE A PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.

Tools marked "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet (Figure A). If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock.

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal.

Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in Figure A.

## EXTENSION CORDS



**WARNING:** ELECTRICAL CORDS CAN BE HAZARDOUS. MISUSE CAN RESULT IN FIRE OR DEATH BY ELECTRICAL SHOCK. READ CAREFULLY AND FOLLOW ALL DIRECTIONS.

Grounded tools require a three wire extension cord. Double insulated tools can use either a two or three wire extension cord. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.

The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. When using more than one extension cord to make up the total length, be sure each cord contains at least the minimum wire size required. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum wire size.

### GUIDELINES FOR USING EXTENSION CORDS

- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.
- Be sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- Protect your extension cords from sharp objects, excessive heat and damp or wet areas.
- Keep away from water. Do not use if wet.
- Inspect thoroughly before each use. **DO NOT USE IF DAMAGED.**
- Make sure equipment is OFF before connecting cord outlet.
- **FULLY INSERT** plug into outlet.
- Do not remove, bend or modify any metal prongs or pins of cord.
- Do not use excessive force to make connections.
- Do not connect a three prong plug to a two-hole cord.
- Avoid overheating. Uncoil cord and do not cover it with any material.
- Do not walk on cord.
- Do not drive, drag or place objects over cord.

# Machine Operation



FIG. A

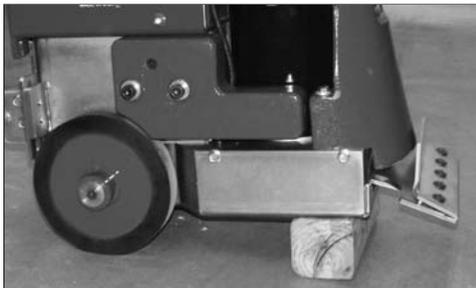


FIG. B



FIG. C

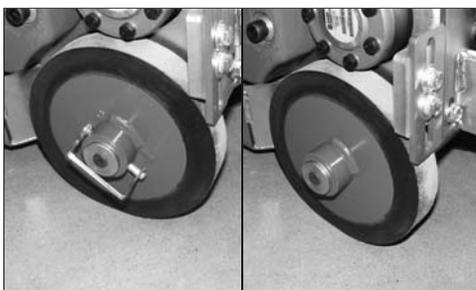


FIG. D

FIG. E



FIG. F

## TRANSPORTING

Transport wheels help to eliminate damage to flooring and make movement of unit easier.



**WARNING:** NEVER HAVE TRANSPORT WHEEL ASSEMBLY MOUNTED ONTO MACHINE OR WHEELS DISENGAGED WHEN GOING UP OR DOWN A LOADING RAMP OR INCLINE. FAILURE TO DO SO COULD CAUSE MACHINE RUNAWAY, DAMAGE TO MACHINE, DAMAGE TO PROPERTY OR CAUSE SERIOUS INJURY.

## ATTACHING/REMOVING TRANSPORT WHEELS

1. Remove two outside blade cover bolts (Figure A).
2. Tip machine back and block up front of machine so cutting head has enough clearance for front wheel assembly to fit under (Figure B).
3. Mount front wheel assembly over blade cover. Replace two outside blade cover bolts (Figure C).
4. Remove blocks.
5. DO NOT leave machine in transport mode while in transit in vehicle without machine being secured.
6. To remove reverse procedure from above.

## WHEELS ENGAGING OR DISENGAGING

Wheels engage and disengage for easier maneuverability. Wheels in the “engage mode” are secured with the axle pins (See Figure D). This engages the wheels for the machine to be self-propelled.

When wheels are in the “disengage mode” (See Figure E). Machine can be moved around freely when the machine IS NOT under power.

## DISENGAGING WHEELS

Pull up on end of pin to release. Slide pin out. Repeat on second wheel. **Note:** Keeping axle pin facing straight up will make re-engaging easier.

## RE-ENGAGING WHEELS

Line up wheel hub hole and axle hole (See Figure F). Insert axle pin and secure pin end. Repeat on second wheel.

## LOADING/UNLOADING



**WARNING:** ALWAYS REMOVE ALL COUNTER WEIGHTS & BLADES AND MAKE SURE THE WHEELS ARE IN “ENGAGE MODE” (FIGURE D) BEFORE LOADING OR UNLOADING. FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

## LIFTING BAIL

The lifting bails make loading/unloading easier when not able to drive or using a ramp. Location on lifting bails centrally locates balance of the machine to safely pick-up machine.

1. Place rope, hook system or chain through eyelets located on top of machine (See Figure G, Page 9).
2. Raise machine with a fork lift or winch.
3. Slowly lower to desired location.

## RAMP LOADING

1. Put the wheels in “engage mode”.
2. Make sure ramp is clean and dry, free of grease or oil.
3. Attach ramp securely to back of vehicle, making sure there is good contact (See Figure H).
4. Position machine at bottom of ramp (See Figure I).
5. Engage power switch and drive onto vehicle.

## RAMP UNLOADING

1. Put the wheels in “engage mode”.
2. Attach ramp securely to back of vehicle, making sure there is good contact (See Figure H).
3. Position machine at the back of the truck in line with the ramp (See Figure J).
4. Carefully move machine onto ramp leaving cutting head down (in contact with ramp surface). **CAUTION:** Machine even without weights weighs 260 pounds. Make sure you have machine under control. Failure to do so could cause machine runaway, damage to machine, damage to property or cause serious injury.
5. Slowly back machine down ramp.

## OPERATING CONTROLS

### MACHINE START-UP PROCEDURE:

1. Machine **MUST** be off before plugging machine into power source.
2. Plug machine into outlet.
3. Turn speed control to slowest position.
4. Push “ON/OFF” switch to the ON position.
5. Engage forward or reverse switch.
6. Increase speed control to desired speed.

### SPEED CONTROL

- Speed control knob can be adjusted while machine is running.
- Turning speed control knob counter clockwise will make machine run faster (See Figure K).
- Turning speed control knob clockwise will make machine run slower (See Figure K).

### FORWARD/REVERSE

- To move the machine forward depress the button on the right handle.
- To move the machine backward depress the button on the left handle.

### ADDING/REMOVING OPTIONAL SLIDE SIDE WEIGHTS

1. There are two slotted channels located on the back side of each slide weight. To install each side slide weight, position the longer slotted channel below the shorter slotted channel. Next, insert the longer slotted channel over the two bolt heads; these currently secure the standard fixed side weight in place. Holding each side slide weight in place, install the 4” inch bolt, with washers, into the threaded hole aligned with the shorter channel slot.
2. Use a ¾” socket wrench to tighten the bolt, securing it to the side of the walk behind scraper. In order to position the side slide weight forward/back based on job application conditions, loosen the once tightened bolt and gently shift the weight to the desired location. After moving each side slide weight to this position, re-tighten each bolt firmly.



FIG. G

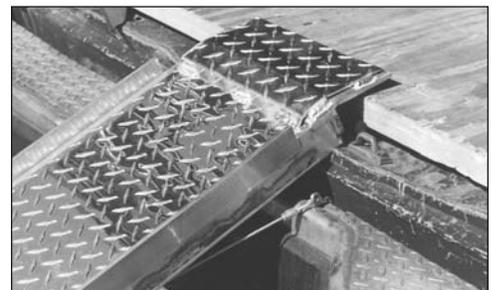


FIG. H

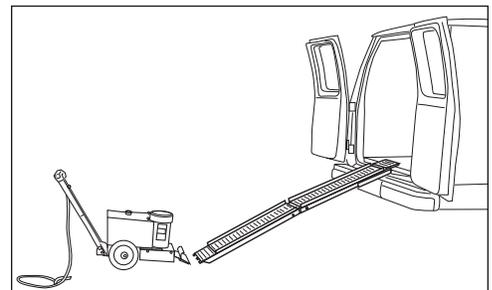


FIG. I

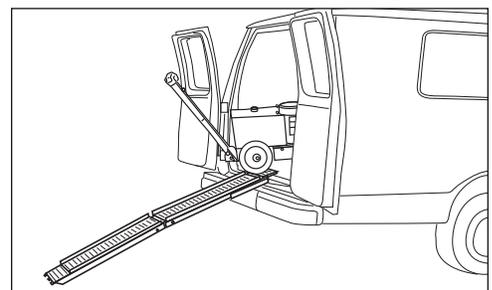


FIG. J

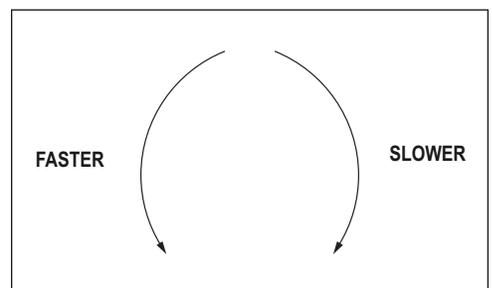


FIG. K

# Machine Operation

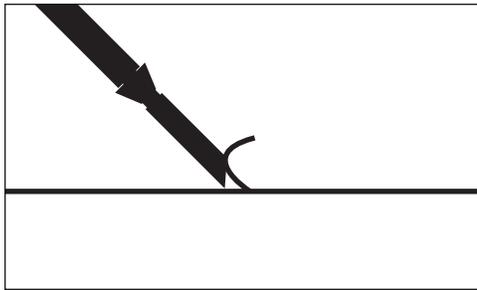


FIG. A

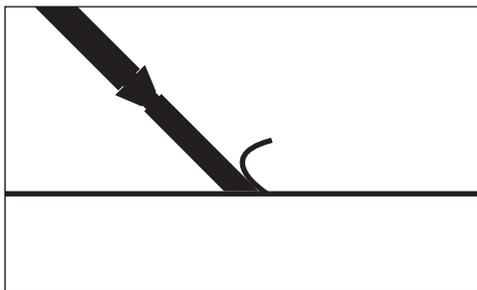


FIG. B

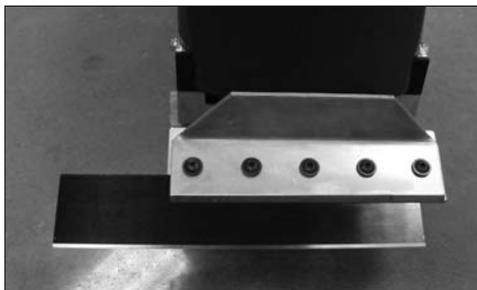


FIG. C



FIG. D

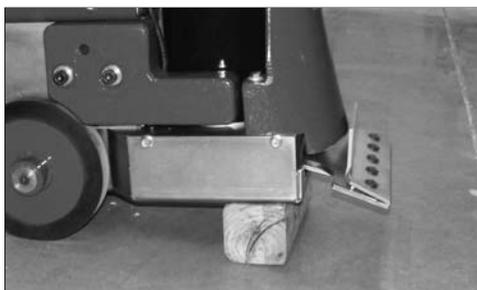


FIG. E

## PREPARING MACHINE FOR JOB

### BLADE SETTING

- Proper blade size and placement, depending on material and sub-floor type, affects performance.
- The harder a job comes up, for best results, use a smaller blade.
- Start with a narrow blade, then increase blade size to optimize cutting pass. Narrower blades work easier than wider blades and usually clean the floor better. Wider is not always better or faster.
- Normally bevel on blade is up for concrete (Figure A). Bevel down for wood (Figure B).
- **KEEP BLADES SHARP.** Dull blades greatly affect the performance of the machine and reduce cutting ability, sharpen or replace as needed.
- **KEEP YOUR WORK AREA CLEAN AND CLEAR OF DEBRIS.** After you have removed a portion of material, remove it out of the way. This will give the machine maximum performance and help to keep the work area safe.
- Always wear gloves when handling blades.
- Everyone in work area should wear eye protection.
- Wood or wood like floors: pound down or remove any nails or metal obstruction to avoid blade damage.
- Blades can be offset in cutting head for easier access to toe kicks or removal along the wall (See Figure C).
- Sheet vinyl, solid vinyl, rubber tile, urethane or PVC sheet roofing, will need to be scored for best removal results. Nationals #584 Scoring Tool (See Figure D). Score flooring to the width of the blade.
- Self scoring blades are available in a number of sizes. These blades eliminate the need for pre-scoring material. Depending upon the type of material being removed and the sharpness of the blade and scoring wings, the self scoring blades may make it harder to control the machine. Keep scoring wings sharp at all times.

### BLADE CHANGING



**CAUTION:** BLADES ARE SHARP; USE EXTREME CAUTION WHEN HANDLING.



**CAUTION:** NEVER CHANGE CUTTING HEAD OR SERVICE BLADES WHILE MACHINE IS RUNNING.

1. Place a block under the front of the machine as shown in Figure E, using a flat piece of 2 x 4 or something similar.
2. Use supplied extended "T" wrench or a 7/32 Allen wrench with at least a 3" extension to keep hand safely away from the sharp edge of the blade. Loosen five (5) allen head bolts (See Figure F, page 11). It is not necessary to remove bolts.
3. Place blade into cutting head, sliding all the way back to the bolts. If the blade is wider than the cutting head, center blade to head. If blade is smaller than the cutting head, first pass blade should be mounted in center of the cutting head. After first pass is made, blade can be offset in head to allow wheels to keep even contact with the floor and allow easy access to the wall.
4. Hand tighten the bolts.

## APPLICATION SET-UP

### VCT TILE

Never use a blade wider than the size of the tile being removed. If goods being removed still do not come up clean or machine jumps on top of goods, reduce blade size to a smaller blade until proper blade size is found or use a smaller portion of the blade.

### PURE VINYL RUBBER TILE

Goods will need to be scored down to 10 to 12 inches for proper removal. Self scoring blades can be used with some materials. A 10" blade is recommended for this product, but determine what size blade works best.

### DIRECT GLUED CARPET

Can be done with either self scoring blades or pre-score carpet to blade width prior to stripping with #584 Scoring Tool. Pre-scored carpet makes machine easier to control and blades stay sharper longer. Blades up to 16" wide can be used. Normally 12" to 14" blades are used on direct glued carpet, secondary backed, unitary, double glued, vinyl foam, urethane foam. Latex foams come up easily with a 16" blade.

### CONCRETE

When working on concrete slab, normal blade position is bevel up for best performance, especially when cleaning adhesive. On occasion, bevel down gives better blade life. Test each job for best performance.

### GIBCRETE AND SOFT POURED FLOORING

Requires blade bevel down to create a better wearing surface.

## BLADE SHARPENING

Dull blades greatly reduce cutting ability. Re-sharpen or replace as needed. In use, blades develop a back-bevel (Figure G). When re-sharpening, blade will not be truly sharp until all back-bevel is gone.

**Note:** Thinner blades are easier to sharpen, but they also break easier.

- Always wear gloves and safety glasses.
- Grind blade using a 4" diameter disk with 120 or finer grit. Be careful not to catch disk on edge or corner of blade.
- Pass grinder along blade edge starting on one end and continuing in one direction being careful to hold grinder at proper angle of blade. Grind until sharp.
- Using a good quality fine tooth hand file, use same procedure as above.
- Blades are sharp. Use extreme caution.
- Have plenty of sharp blades on each job so on-the-job blade sharpening is eliminated.
- It is best to resharpen dull blades on proper bench or belt grinder in the shop, so the blades are ready for the next job.

### SELF-SCORING BLADE SHARPENING

It is important to keep the "wings" on a self-scoring blade sharp (Figure H). Use a file on the "wing" edge. Sharpen the flat part of the blade, the same way as described above.



FIG. F

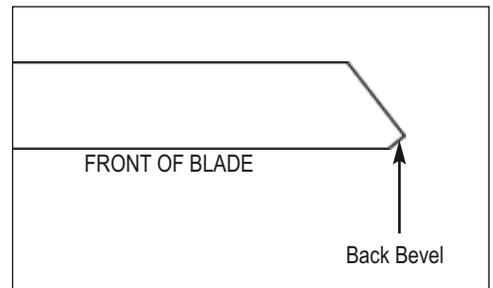


FIG. G

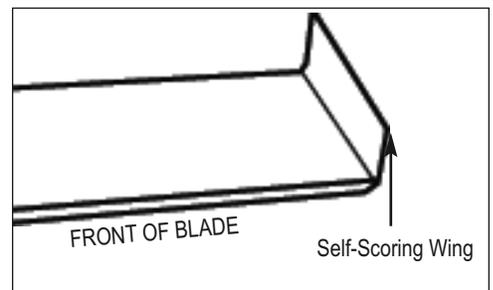


FIG. H



FIG. A

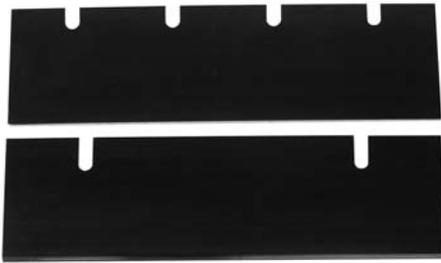


FIG. B



FIG. C



FIG. D



FIG. E

## TYPES OF BLADES

### STANDARD BLADE (FIGURE A)

PART#	DESCRIPTION	THICKNESS (IN.)
135	5" X 16" BLADE	.062
136	5" X 8" BLADE	.062
147	4" X 6" BLADE	.062
148	5" X 6" BLADE	.062

### BLADES WITH SLOTS (FIGURE B)

PART#	DESCRIPTION	THICKNESS (IN.)
130-S	3" X 10" BLADE WITH SLOTS	.062
131-S	3" X 16" BLADE WITH SLOTS	.062

### DOUBLE EDGE BLADES (FIGURE C)

PART#	DESCRIPTION	THICKNESS (IN.)
130-D	3" X 10" DOUBLE EDGE BLADE	.062
147-D	4" X 6" DOUBLE EDGE BLADE	.062
148-D	5" X 6" DOUBLE EDGE BLADE	.062

### PREMIUM HIGH TEMPERED BLADES (FIGURE D)

Ultra high quality spring steel is extra hard for long blade life between sharpening. Works on all glued down carpets, VCT, VAT, rubber tile, cork, re-scraping adhesive, elastomeric coatings. Great for floor accumulations.

PART#	DESCRIPTION	THICKNESS (IN.)
7050-200	3" X 6" PREMIUM HIGH TEMPERED BLADE	.062
7050-201	3" X 8" PREMIUM HIGH TEMPERED BLADE	.062
7050-202	3" X 10" PREMIUM HIGH TEMPERED BLADE	.062
7050-203	3" X 12" PREMIUM HIGH TEMPERED BLADE	.062
7050-204	3" X 14" PREMIUM HIGH TEMPERED BLADE	.062
7050-205	3" X 27" PREMIUM HIGH TEMPERED BLADE	.062

### HEAVY DUTY BLADES (FIGURE E)

A heavy duty blade that still has a little flex. Made with National's proven blade hardening process, these blades will stay sharper longer with better overall performance than any other blade on the market. Works on VCT, VAT, wood, tile, rubber, epoxy, elastomeric coatings, scraping thin-set, glued ceramic.

PART#	DESCRIPTION	THICKNESS (IN.)
6281	3" X 8" HEAVY DUTY BLADE	.094
6282	3" X 14" HEAVY DUTY BLADE	.094
6284	3" X 12" HEAVY DUTY BLADE	.094
6285	3" X 6" HEAVY DUTY BLADE	.094
6286	3" X 10" HEAVY DUTY BLADE	.094
6240	4" X 6" HEAVY DUTY BLADE	.094
6241	4" X 8" HEAVY DUTY BLADE	.094
6242	4" X 12" HEAVY DUTY BLADE	.094
6243	4" X 15" HEAVY DUTY BLADE	.094
6245	4" X 10" HEAVY DUTY BLADE	.094

## EXTRA HEAVY DUTY BLADES (FIGURE F)

Extremely hard, high abrasion alloy for tough tear up situations. VCT, VAT, wood, tile, lighter ceramic, rescraping thin-set, all carpets, cork, elastomeric coatings, rescraping rubber and urethane coatings. Holds the edge extremely well.

PART#	DESCRIPTION	THICKNESS (IN.)
6290	3" X 6" EXTRA HEAVY DUTY BLADE	.187
6291	3" X 8" EXTRA HEAVY DUTY BLADE	.187
6292	3" X 12" EXTRA HEAVY DUTY BLADE	.187
6293	3" X 14" EXTRA HEAVY DUTY BLADE	.187



FIG. F

## SELF-SCORING BLADES (FIGURE G)

Tough, long lasting, self-scoring blades. 90° angled self-scoring wings. Made from National's proven blade hardening process, performs up to ten times longer than the competition. Works on attached cushion, Unitary or secondary backing, vinyl back, soft to medium PVC, linoleum, carpet tiles, soft cork, Enhancer and Unibond hot melts.

PART#	DESCRIPTION	THICKNESS (IN.)
6255-BU	4" X 6" SELF-SCORING BLADE	.062
6258-BU	3" X 12" SELF-SCORING BLADE	.062
6259-BU	3" X 14" SELF-SCORING BLADE	.062
6277-BU	3" X 12" SELF-SCORING BLADE	.094
6278-BU	3" X 14" SELF-SCORING BLADE	.094
6247	4" X 10" SELF-SCORING BLADE	.094
6249	4" X 12" SELF-SCORING BLADE	.094
6256-BU	4" X 6" W/ 4" BU SELF-SCORING BLADE	.062
6261-BU	3" X 12" W/ 4" BU SELF-SCORING BLADE	.062



FIG. G

## INCREASED ANGLE BLADES (FIGURE H)

Mainly used for VCT, but can be used on most other applications. Supplies more of an angle when angle is needed. Prevents machine from jumping off material.

PART#	DESCRIPTION	THICKNESS (IN.)
7081	3" X 10" INCREASED ANGLE BLADE	.062
7083	3" X 8" INCREASED ANGLE BLADE	.062



FIG. H

## RAZOR/SCRAPER BLADES (FIGURE I)

Razor sharp, super hard for scraping thin epoxies, thin mil coatings like urethane paint, poured elastomeric coatings up to 60 mil, hard to remove adhesives and much more.

PART#	DESCRIPTION	THICKNESS (IN.)
363-2	3/4" X 8" RAZOR/SCRAPER BLADE (50/PKG)	.032
368-8	7/8" X 8" RAZOR/SCRAPER BLADE (50/PKG)	.045
368-12	7/8" X 12" RAZOR/SCRAPER BLADE (50/PKG)	.045
368-15	7/8" X 15" RAZOR/SCRAPER BLADE (50/PKG)	.045

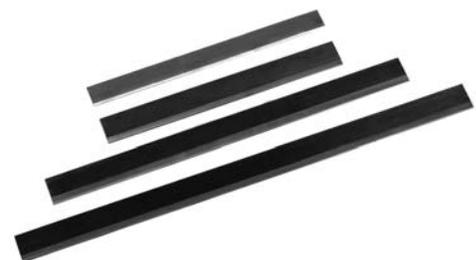


FIG. I

# Machine Maintenance

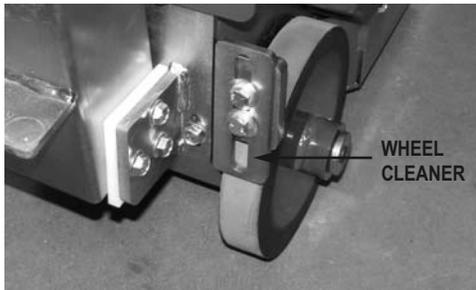


FIG. A

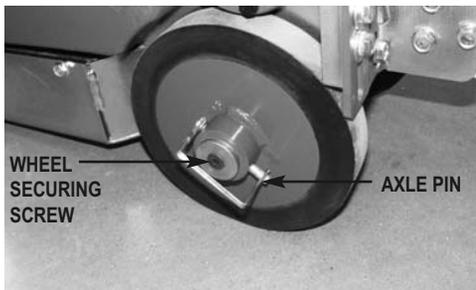


FIG. B



FIG. C



FIG. D

**WARNING:** ALWAYS UNPLUG MACHINE BEFORE MAINTAINING.

## WHEEL CLEANER ADJUSTMENT

1. Loosen wheel cleaner with 9/16" wrench (See Figure A).
2. Slide cleaner up to face of wheel until it touches but DOES NOT dig into wheel surface.
3. Retighten firmly.
4. Over tightening wheel cleaner could cause damage to wheel.

## WHEEL REMOVAL

1. Examine back of wheels (with a flashlight is helpful) to see if debris is built up.
2. Keep clean from yarn build up.
3. Unplug machine.
4. Lay machine on its side.
5. Use provided 3/16" allen wrench.
6. Remove Axle Pin (See Figure B).
7. Remove wheel securing screw. (See Figure B).
8. Remove wheel securing cap.
9. Wheel will slide off. Watch for keyway key. DO NOT LOSE.
10. Remove wheel spacer. This should be inspected at regular intervals.

## ADDING OR CHANGING HYDRAULIC FLUID

1. Occasionally blow out the Filler Port Cap filter to remove debris.
2. Change or add fluid when needed and/or at least once a year under normal conditions. Check fluid level if there has been a leak, damaged or ruptured hose or a loose fitting. Fluid should be level with bottom of Tank Plug Hole (See Figure C).
3. To add fluid, unscrew Filler Port Cap from top of machine (See Figure D).
4. To change fluid, remove Filler Port Cap. Remove drain plug from side of machine (See Figure D). A container approximately two gallons in size will be needed to drain fluid into (fluid will not be removed from hoses).
5. Machine has a straining system, but add fluid through a filter or funnel with a screen to keep fluid clean.
6. Use Texaco Rando 46 Hydraulic Oil Light, stock #6280-1 or comparable.

## INSPECTION OF INTERNAL PARTS

Visual inspection of internal parts can be done without draining tank.

1. Remove two lifting bail eyebolts and the two bolts from the back of the tank.
2. Carefully lift tank 3" to 4".
3. Using a flashlight, inspect drive chain, hoses, front seal on motor, and suction and pressure line on pump.
4. If service is necessary, follow procedure for tank removal.

## TANK REMOVAL

Removing the tank will be necessary to repair the pump or to replace or service internal hoses.

1. Drain tank by removing top Filler Port Cap and Drain Plug on side of machine (See Figure D). A container approximately two gallons in size will be needed to drain fluid into.
2. Replace Drain Plug and Filler Port Cap.
3. Remove two lifting bail eyebolts and the two bolts from the back of the tank.
4. Disconnect return line on back of tank, carefully lift tank 3" to 4" and disconnect suction line. Tank can now be removed.

## SPEED CONTROL REPLACEMENT

1. Use a 3/32" allen wrench to remove speed control knob.
2. Use a 1" deep socket to remove and replace speed control valve.
3. Re-install speed control knob.

## PRESSURE VALVE REPLACEMENT

This has been factory set and should not be tampered with. If replacement is needed:

1. Use a 1" deep socket to remove old unit and install a new National issued valve.

## FORWARD AND REVERSE SWITCH REPLACEMENT

1. Disconnect power source to unit.
2. Remove 2 1/4 - 20 x 1/2 hexhead bolts from handle. Use 7/16 diameter wrench or socket.
3. Loosen 9/16 nut that secures switch to handle.
4. Remove handle and switch.
5. Remove 2 spade connectors from switch.
6. For switch replacement, bend the 2 prongs 90° from both ends of switch. Use old switch as a pattern.
7. Connect 2 space connectors to 2 bent prongs on switch.
8. Install black washer in new switch, and re-install switch in notch in handle. Tighten with a 9/16 wrench or socket. Use care not to strip threads.
9. Insert handle into collar on handle column, and replace the 2 1/4 - 20 x 1 1/2 bolts. Tighten bolts with 7/16 wrench.

## SOLENOID CARTRIDGE REPLACEMENT

1. Disconnect solenoid wires from switches.
2. Remove nut on top of solenoid.
3. Remove solenoids and spacer.
4. Remove cartridge with a 1" wrench.
5. Replace with new cartridge.
6. Remount solenoids to make sure spacer is in between.
7. Re-install nut with lock-tight (do not over Tighten).
8. Reconnect solenoid wires.

## POWER CORD

If power cord is damaged, it must be replaced by National or its service agent, or a similar qualified person in order to avoid a hazard.

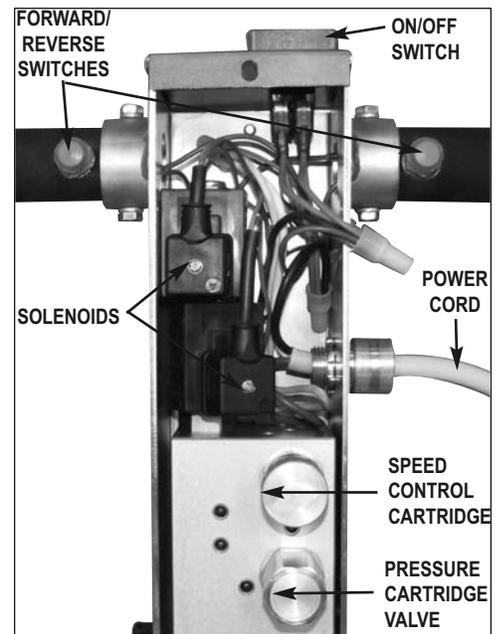


FIG. E

# Troubleshooting Guide

Problem	Cause	Solution
Machine will not start.	Insufficient power.	Make sure that you are using the 12 gauge 50 foot power cord provided by NFE.
	Loose capacitor leads.	Check capacitor leads to ensure that they are attached.
	The overload button on motor has been tripped.	Button is located on the bottom of the electric box on motor. If so, press in until it clicks.
	Faulty ON/OFF switch.	Replace if needed.
Machine will not move	Wheels are not "engaged".	Make sure that wheel pins are installed to engage wheels.
	Belt has broken.	Remove wheels and bottom cover to inspect. Replace if needed.
	Chain has broken.	Remove wheels and bottom cover to inspect. Repair or replace if needed.
	Forward/Reverse switch failure.	Inspect forward and reverse switches. Replace if needed.
	Speed control is turned all the way down.	Adjust speed control to ensure that valve is opened.
Motor is humming but machine does not run, or blows breakers.	Isolators have failed.	Remove wheels and bottom cover to inspect.
	Capacitors have failed.	Replace as needed.
	Dirty starter switch connections.	Remove fan cover and fan. Clean start switch (set of points) with an emery board or cloth between the points. Reassemble.
Machine is leaking hydraulic fluid.	Hoses leaking.	Tighten as needed. Replace if needed.
	Fittings to hydraulic components are loose.	Tighten as needed or replace.
Motor is heating up	Motor shaft is binding.	Remove wheels and cover to inspect isolators. Inspect cutting head bearing and eccentric to ensure that they are not binding. If issue continues, contact NFE for additional support.

# Parts List and Diagrams

## COMPLETE PARTS LIST

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY	
1	1009	GLASSES, SAFETY	1	55 6280-114B	PUMP DRIVE ASSEMBLY, SPLINED	1
2	400018	WHEEL, DRIVE, WITH BEARING	2	56 6280-103A	SNAP RING	1
3	71113	BEARING, 1 ID B1616	1	57 6280-115	SHEAVE, PUMP	1
4	400177	OIL (1 GALLON)	2	58 6280-1151	RETAINER, PUMP SHEAVE	1
5	400269	BOLT, HEX HEAD, 3/8-16 X 3-3/4	2	59 6280-116A	SHAFT, SPLINE PUMP	1
6	5173	KIT, BLADES, 5280 AND 6280	1	60 73101	SPACER, ID 1/8X1-1/4ODX1"	1
7	6254	CORD, EXTENSION, 50FT	1	61 6280-145	COVER, FRONT	1
8	6280-110	SPACER, WHEEL, 1/2	2	62 70810	ISOLATOR, VIBRATION	5
9	6280-112	CAP, WHEEL	2	63 71115	BEARING, 1X2X1/2	3
10	6280-113S	PUMP, SPLINE, #4	1	64 71132	BEARING, 1-1/4	1
11	6280-117	FITTING, PUMP	1	65 73033	KEY, 1/4 X 1/4 X 1"	1
12	6280-118	FITTING, SUCTION HOSE TO PUMP	1	66 73217	BOLT, LOW HEAD SOCKET 3/8-16X3/4	5
13	6280-119	SPACER, PUMP	1	67 73310	SCREW, SH CAP, GRADE 5 5/16-18X7/8	2
14	6280-120	HOSE, SUCTION	1	68 73311	SCREW, SH CAP, GRADE 5 5/16-18X1	2
15	6280-124	BELT, PUMP DRIVE, DD12	1	69 73332	BOLT, HEX HEAD CAP 5/16-18X5/8	2
16	6280-125	IDLER ASSEMBLY, COMPLETE	1	70 6280-HANDLE	HANDLE, ASSEMBLY, 6280	1
17	6280-125W	BRACKET AND PIN, IDLER MOUNT	1	71 400304	HANDLE BAR, COMPLETE	2
18	6280-126A	CAP, IDLER BEARING	1	72 400303	SWITCH, WIRED	1
19	71072	BEARING, 1/2 ID DCTN-1616	2	73 400306	GRIP, HAND, CUT	1
20	73003	SCREW, BH SOCKET CAP 1/4-20X5/8	1	74 6280-170	BAR, HANDLE	1
21	73215	WASHER, EXTERNAL LOCK 3/8	1	75 70609	CAP, SWITCH	1
22	6280-136	COVER, BLADE	1	76 72938	NUT, ROUND SWITCH	1
23	6280-138	COVER, MAIN BOTTOM	1	77 73304	WASHER, WAVEY 5/16	1
24	6280-139	COVER, REAR	1	78 6280-100	CONNECTOR, HIRSHMAN TSII / LEAD WIRES	2
25	6280-143	HEAD, CUTTING	1	79 6280-117	FITTING, PUMP	3
26	6280-156L	BODY, MAIN, UPPER, LEFT	1	80 6280-162E	PLUG, DRAIN, OIL LEVEL	1
27	6280-156R	BODY, MAIN, UPPER, RIGHT	1	81 6280-166B	CAP, SWITCH PLATE	1
28	6280-161B	PLUG, VENT , FILLER CAP	1	82 6280-167	BODY, HANDLE	1
29	6280-161D	PLUG, FILLER PORT	1	83 6280-168	CORD, POWER, NEW STYLE	1
30	6280-162	TANK, HYDRAULIC	1	84 6280-180	HOSE, MOTOR	2
31	6280-162G	MAGNET, TANK	1	85 6280-181	HOSE, PRESSURE	1
32	6280-165	CLEANER, WHEEL	2	86 6280-182	HOSE, RETURN LINE	1
33	6280-166C	PLATE, HANDLE COVER	1	87 6280-207	SWITCH, ON-OFF	1
34	6280-166D	SEAL, LARGE RUBBER FOAM	1	88 6280-208	CONTROL, SPEED	1
35	6280-167D	ISOLATOR, HANDLE, VIBRATION	2	89 6280-208A	KNOB, SPEED CONTROL	1
36	6280-179	RING, MOTOR SPACER	1	90 6280-209	VALVE, PRESS CARTRIDGE	1
37	6280-214	PLUG, TANK	2	91 6280-215	VALVE BLOCK ASSEMBLY	1
38	6280-228	CHAIN, DRIVE	1	92 6280-215A	PLUG, VALVE BLOCK ASSEMBLY	1
39	6280-229	LINK, MASTER, DRIVE CHAIN	1	93 6280-216	CARTRIDGE, SOLENOID, VALVE	1
40	6280-299	WHEEL ASSEMBLY, FRONT	1	94 6280-217	COIL, SOLENOID	2
41	6280-300	BRACKET, TRANSPORT WHEEL	1	95 6280-404	HOLDER, BLADE WRENCH	1
42	6280-301	WHEEL, ONLY, FRONT TRANSPORT	2	96 70651	PLUG, VALVE BODY	1
43	73402	NUT, NYLOCK 1/2-13	2	97 72553	CORD, HANDLE	1
44	73425	WASHER, FLAT USS ZINC 1/2	14	98 72565	WIRE, 14/3, 250' SPOOL	2
45	L95H	LABEL, CAUTION DO NOT	1	99 6280-175	PLUG, TWIST LOCK, FEMALE	1
46	6280-401B	WRENCH, ALLEN, 7/32	1	100 72804	STRAIN RELIEF, STRAIGHT, 1/2"	1
47	6280-405	ECCENTRIC	1	101 73002	WASHER, SPLIT LOCK 1/4	16
48	6280-BASEASSY	SUBASSEMBLY, BASE, 6280	1	102 73019	BOLT, HEX HEAD CAP 1/4-20X3/4	8
49	6280-103-1	SHAFT, AXLE	1	103 73022	BOLT, HEX HEAD CAP 1/4-28X1/2	8
50	6280-103A	SNAP RING	2	104 73401	NUT, STRAIN RELIEF, STEEL, 1/2"	1
51	6280-104	SPROCKET, AXLE	1	105 74402	SCREW, CUP POINT SET 10-32X3/8	1
52	6280-105L	SUPPORT, AXLE BEARING, LEFT	1	106 6280-HYDMOTOR	MOTOR, HYDRAULIC, SUB, 6280	1
53	6280-105R	SUPPORT, AXLE BEARING, RIGHT	1	107 6280-104	SPROCKET, AXLE	1
54	6280-108	PLATE, BASE, NEW STYLE	1	108 6280-220A	MOTOR, HYDRAULIC	1

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

# Parts List and Diagrams

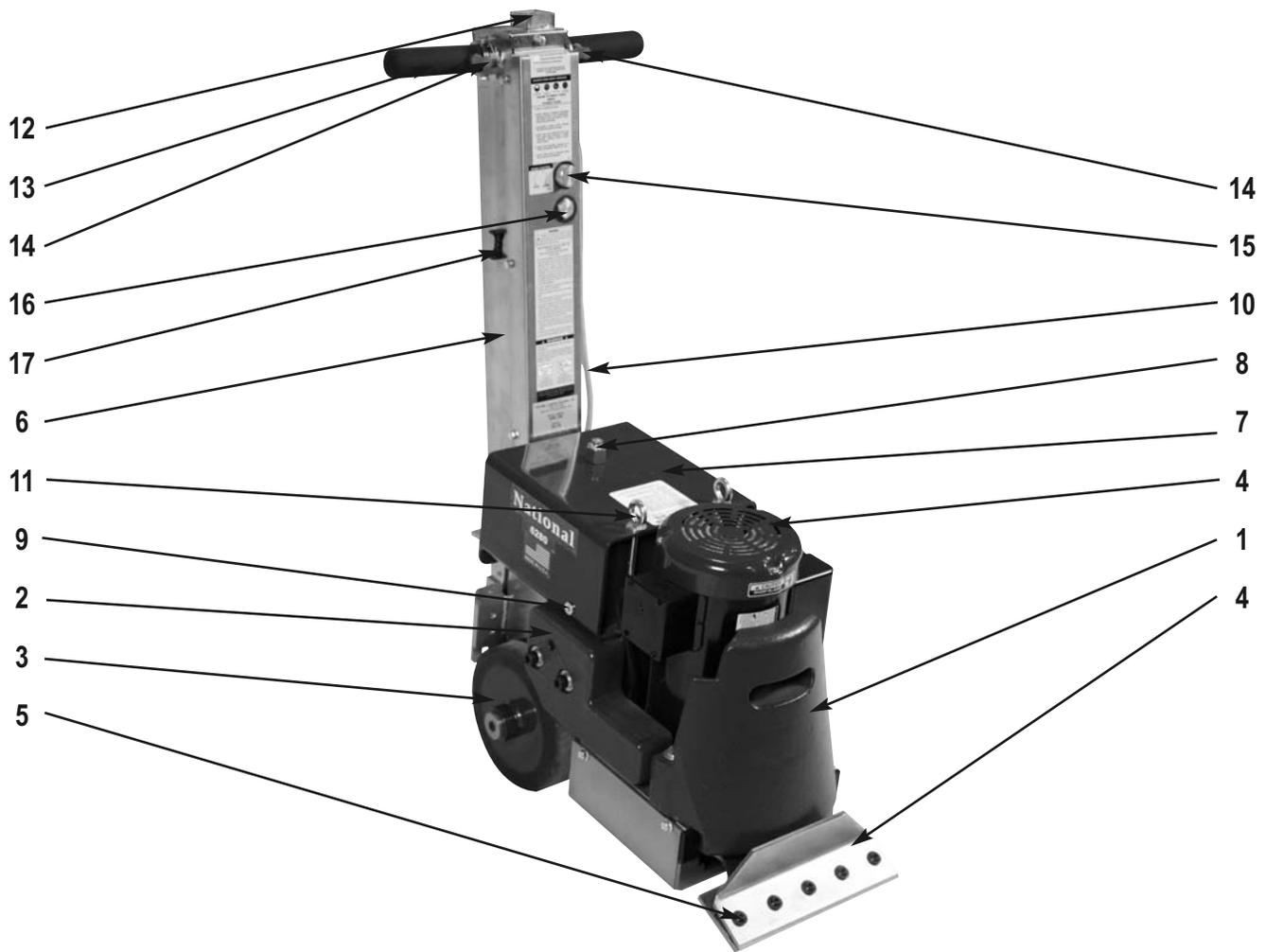
## COMPLETE PARTS LIST

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
109 6280-221	CONNECTOR, HYDRAULIC MOTOR	2	163 L173B	LABEL NATIONAL 6280	2
110 6280-223	KEY, SHAFT, HYDRAULIC MOTOR	1	164 L175	LABEL, NATIONAL, SMALL	2
111 6280-225	SPACER, HYDRAULIC MOTOR	1	165 L186	LABEL ON/OFF SWITCH	1
112 6280-226	BRACKET, MOUNTING, HYDRAULIC MOTOR	1	166 L187	LABEL REMOVE CENTER WEIGHT HD	1
113 71115	BEARING, 1X2X1/2	1	167 L188	LABEL CAUTION GEN INFO	1
114 73222	BOLT, FLANGE 3/8-16X1	4	168 L189	LABEL ASBESTOS HD	1
115 6280HD-131	KEY, ECCENTRIC	1	169 L220	LABLE BLD SETTING	1
116 70601	STRAINER, TANK MOUNTED	1	170 L223	LABEL, PATENT NUMBER	1
117 71118	BEARING, FLANGE	1	171 L37	LABEL, CAUTION SHRP BLDS	1
118 71141	BEARING, 1-7/16" ID 16SC4FB	1	172 L49	LABEL, CORD CAUTION	1
119 72365	MOTOR, 1-1/2 HP 115 VOLT	1	173 L95C	LABEL FORWARD	1
120 72554	CORD ASSEMBLY, MOTOR, 120 VOLT	1	174 L95D	LABEL REVERSE	1
121 6280-176	PLUG, TWIST LOCK, HUBBEL	1	175 L95E	LABEL SPEED CONTROL	1
122 72565	WIRE, 14/3, 250' SPOOL	3	176 L95F	LABEL, FLUID LEAK	1
123 72887	LOOM, CONVOLUTED SPLIT 1/2"	3	177 L95G	LABEL FLUID LEVEL	1
124 72810	CAPS, SPLICE	3			
125 72811	CAPS, INSULATOR, SPLICE	3			
126 72816	FITTING, ELBOW, 90 DEGREE, 3/8"	1			
127 72821	TERMINAL,RING,16-14 GAUGE,NYLN,10 STUD	1			
128 73002	WASHER, SPLIT LOCK 1/4	8			
129 73010	SCREW, SET 1/4-20X1/4	2			
130 73022	BOLT, HEX HEAD CAP 1/4-28X1/2	8			
131 73039	SCREW, CUP POINT SCKET SET 1/4-20X3/16	1			
132 73201	BOLT, CAP 3/8-16X1	8			
133 73204	WASHER, SPLIT LOCK 3/8	10			
134 73211	NUT, FLANGE ZINC 3/8-16	7			
135 73215	WASHER, EXTERNAL LOCK 3/8	1			
136 73218	BOLT, HEX HEAD CAP 3/8-24X3/4	1			
137 73222	BOLT, FLANGE 3/8-16X1	3			
138 73222	BOLT, FLANGE 3/8-16X1	6			
139 73223	BOLT, FLANGE 3/8-16X1-1/4	8			
140 73228	EYE BOLT, 3/8-16X8	2			
141 73242	SCREW, BH CAP WITH FLANGE 3/8-16 X 1	5			
142 73263	WASHER, FLAT SEA ZINC 3/8	2			
143 73264	WASHER, FLAT, ZINC USS 3/8	12			
144 73303	WASHER, SPLIT LOCK 5/16	4			
145 73311	SCREW, SH CAP, GRADE 5 5/16-18X1	4			
146 73313	SCREW, FH SOCKET CAP 5/16-18X1/2	2			
147 73318	BOLT, WIZLOCK FLANGE 5/16-18X5/8	10			
148 73330	PIN, LOCKING, 5/16X2	2			
149 73401	NUT, STRAIN RELIEF, STEEL, 1/2"	1			
150 73403	WASHER, SPLIT LOCK 1/2	4			
151 73418	BOLT, HEX HEAD 1/2-20X1	4			
152 73423	WASHER, INTERIOR/EXTERIOR LOCK 1/2"	4			
153 73424	WASHER, FLAT, ZINC SAE 1/2	4			
154 73429	SCREW, SOCKET HEAD CAP 1/2-13X3	4			
155 73502	STRAIN RELIEF, STRT 1/2 IN., .3376-.5686	1			
156 73906	KEY, ALLEN SHORT ARM 3/16	1			
157 74730	GROMMET, RUBBER 5/8"	1			
158 74730	GROMMET, RUBBER 5/8"	1			
159 74763	GROMMET, RUBBER 1/2"	1			
160 74852	WEIGHT, FRONT	1			
161 74853	WEIGHT, SIDE	2			
162 L141	LABEL, FLAG MADE IN US	2			

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

# Parts List and Diagrams

## EXTERNAL PARTS

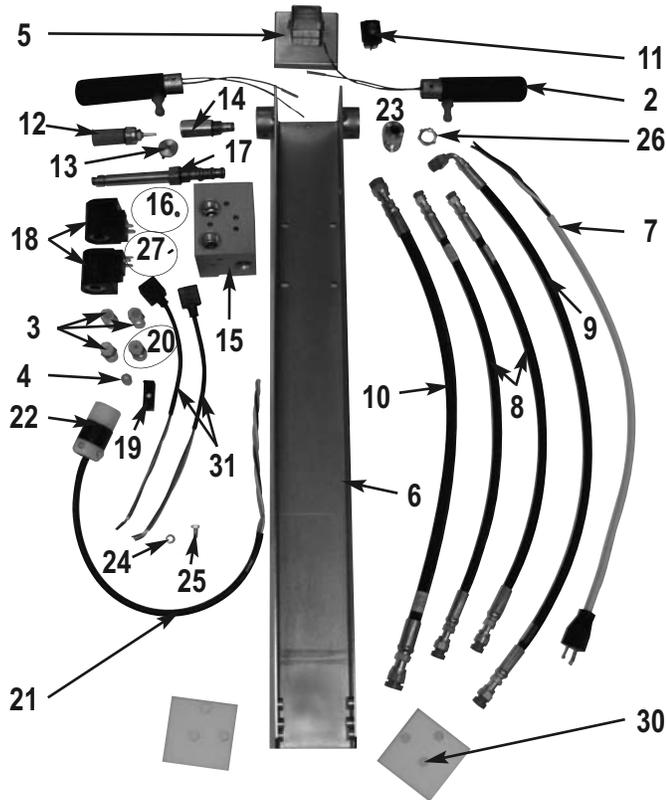


PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	74852	WEIGHT, FRONT	1	10	6280-168	CORD, POWER, NEW STYLE	1
2	74853	WEIGHT, SIDE	2	11	73228	EYE BOLT, 3/8-16X8	2
3	400018	WHEEL, DRIVE, WITH BEARING	2	12	6280-207	SWITCH, ON-OFF	1
4	6280-136	COVER, BLADE	1	13	400304	HANDLE BAR, COMPLETE	2
5	73242	SCREW, BH CAP WITH FLANGE 3/8-16 X 1	5	14	400303	SWITCH, WIRED	1
6	6280-HANDLE	HANDLE, ASSEMBLY, 6280	1	15	6280-208A	KNOB, SPEED CONTROL	1
7	6280-162	TANK, HYDRAULIC	1	16	6280-209	VALVE, PRESS CARTRIDGE	1
8	6280-161B	PLUG, VENT , FILLER CAP	1	17	6280-404	HOLDER, BLADE WRENCH	1
9	6280-161D	PLUG, FILLER PORT	1				

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# Parts List and Diagrams

## HANDLE ASSEMBLY

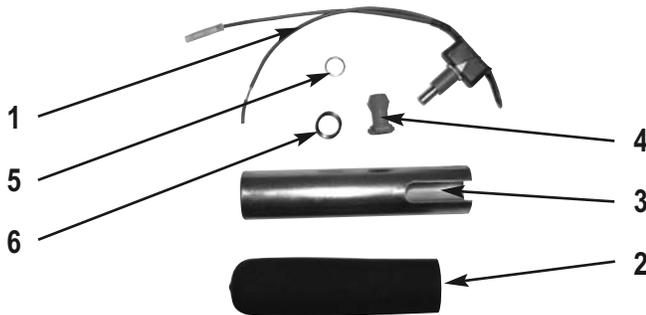


PART#	DESCRIPTION	QTY
1	6280-HANDLE	1
2	400304	2
3	6280-117	3
4	6280-162E	1
5	6280-166B	1
6	6280-167	1
7	6280-168	1
8	6280-180	2
9	6280-181	1
10	6280-182	1
11	6280-207	1
12	6280-208	1
13	6280-208A	1
14	6280-209	1
15	6280-215	1
16	6280-215A	1
17	6280-216	1
18	6280-217	2
19	6280-404	1
20	70651	1
21	72553	1
22	6280-175	1
23	72804	1
24	73002	8
25	73022	8
26	73401	1
27	74402	1
28	6280-166C	1
29	6280-166D	1
30	6280-167D	2
31	6280-100	2

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

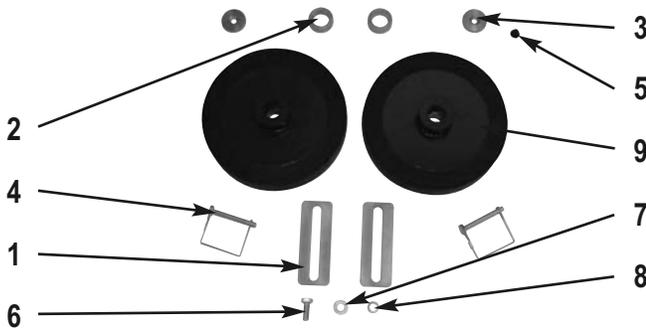
# Parts List and Diagrams

## HANDLE BAR ASSEMBLY



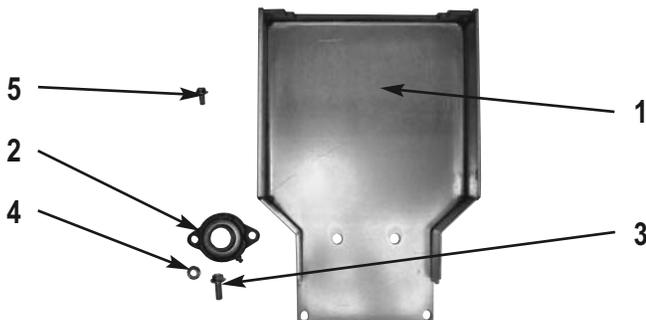
PART#	DESCRIPTION	QTY
1 400303	SWITCH, WIRED	1
2 400306	GRIP, HAND, CUT	1
3 6280-170	BAR, HANDLE	1
4 70609	CAP, SWITCH	1
5 72938	NUT, ROUND SWITCH	1
6 73304	WASHER, WAVEY 5/16	1

## REAR WHEEL ASSEMBLY



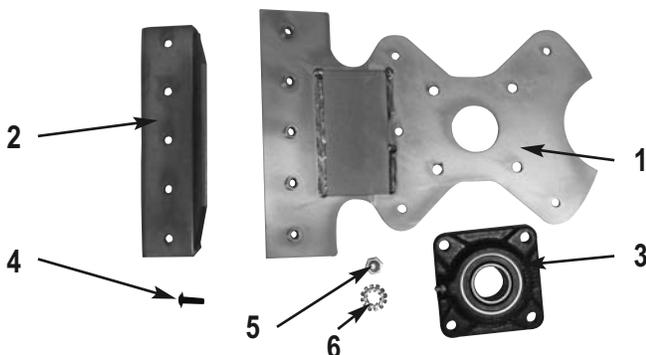
PART#	DESCRIPTION	QTY
1 6280-165	CLEANER, WHEEL	2
2 6280-110	SPACER, WHEEL, 1/2	2
3 6280-112	CAP, WHEEL	2
4 73330	PIN, LOCKING, 5/16X2	2
5 73313	SCREW, FH SOCKET CAP 5/16-18X1/2	2
6 73201	BOLT, CAP 3/8-16X1	2
7 73264	WASHER, FLAT, ZINC USS 3/8	2
8 73204	WASHER, SPLIT LOCK 3/8	2
9 400018	WHEEL, DRIVE, WITH BEARING	2

## BOTTOM COVER & BEARING ASSEMBLY



PART#	DESCRIPTION	QTY
1 6280-138	COVER, MAIN BOTTOM	1
2 71118	BEARING, FLANGE	1
3 73222	BOLT, FLANGE 3/8-16X1	2
4 73211	NUT, FLANGE ZINC 3/8-16	2
5 73318	BOLT, WIZLOCK FLANGE 5/16-18X5/8	8

## CUTTING HEAD ASSEMBLY

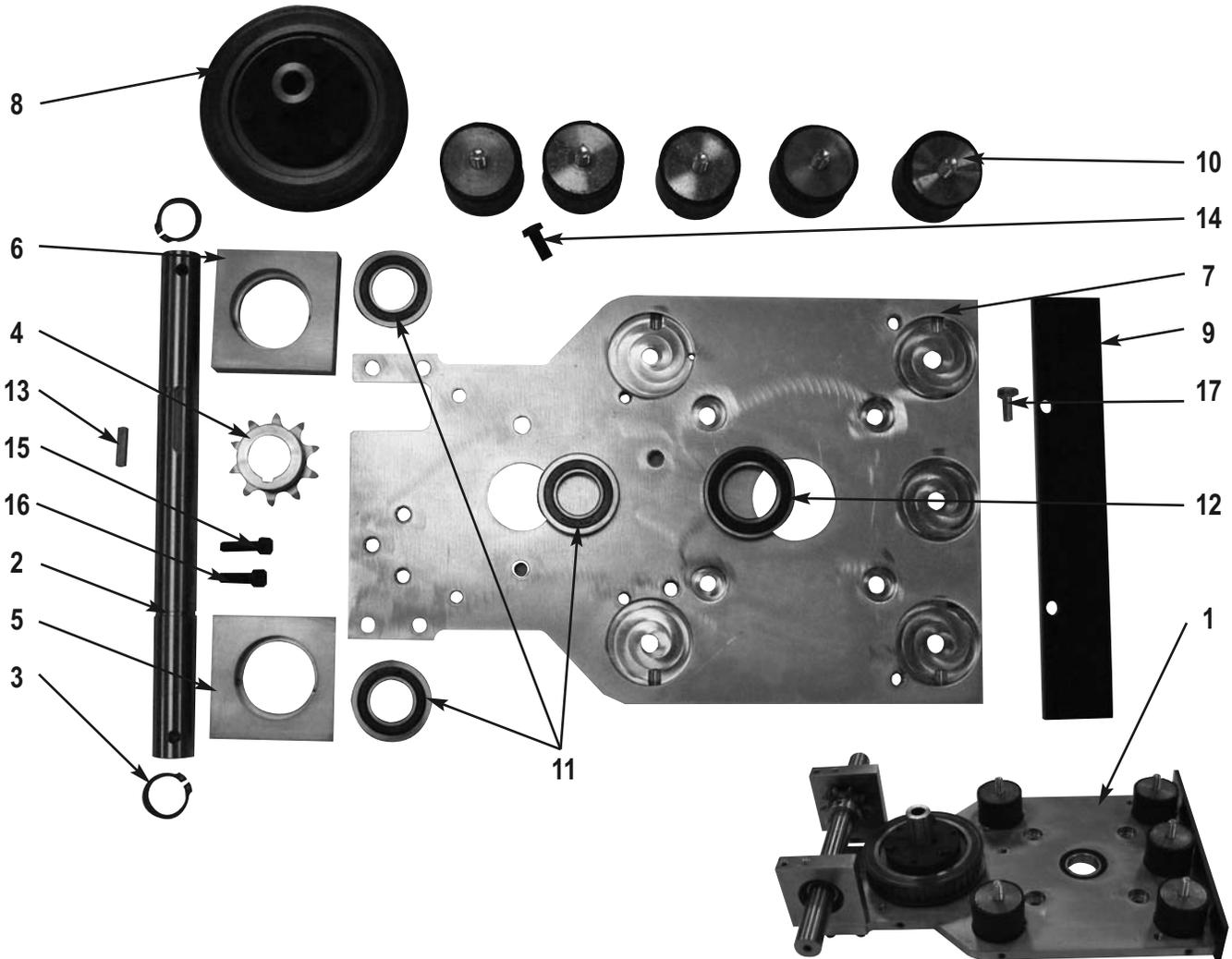


PART#	DESCRIPTION	QTY
1 6280-143	HEAD, CUTTING	1
2 6280-136	COVER, BLADE	1
3 71141	BEARING, 1-7/16" ID 16SC4FB	1
4 73242	SCREW, BH CAP WITH FLANGE 3/8-16 X 1	5
5 73418	BOLT, HEX HEAD 1/2-20X1	4
6 73423	WASHER, INTERIOR/EXTERIOR LOCK 1/2"	4

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

# Parts List and Diagrams

## BASE ASSEMBLY

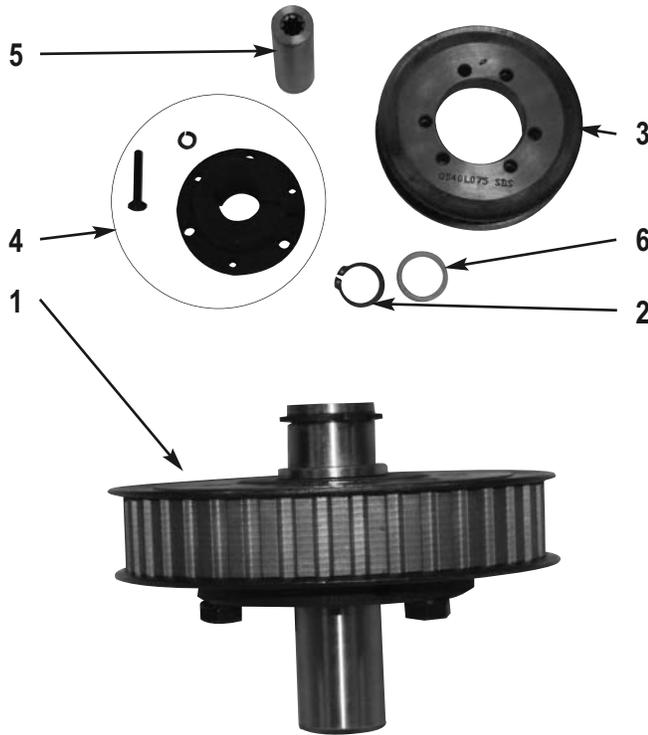


PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	6280-BASEASSY SUBASSEMBLY, BASE, 6280	1	10	70810 ISOLATOR, VIBRATION	5
2	6280-103-1 SHAFT, AXLE	1	11	71115 BEARING, 1X2X1/2	3
3	6280-103A SNAP RING	2	12	71132 BEARING, 1-1/4	1
4	6280-104 SPROCKET, AXLE	1	13	73033 KEY, 1/4 X 1/4 X 1"	1
5	6280-105L SUPPORT, AXLE BEARING, LEFT	1	14	73217 BOLT, LOW HEAD SOCKET 3/8-16X3/4	5
6	6280-105R SUPPORT, AXLE BEARING, RIGHT	1	15	73310 SCREW, SH CAP, GRADE 5 5/16-18X7/8	2
7	6280-108 PLATE, BASE, NEW STYLE	1	16	73311 SCREW, SH CAP, GRADE 5 5/16-18X1	2
8	6280-114B PUMP DRIVE ASSEMBLY, SPLINED	1	17	73332 BOLT, HEX HEAD CAP 5/16-18X5/8	2
9	6280-145 COVER, FRONT	1			

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

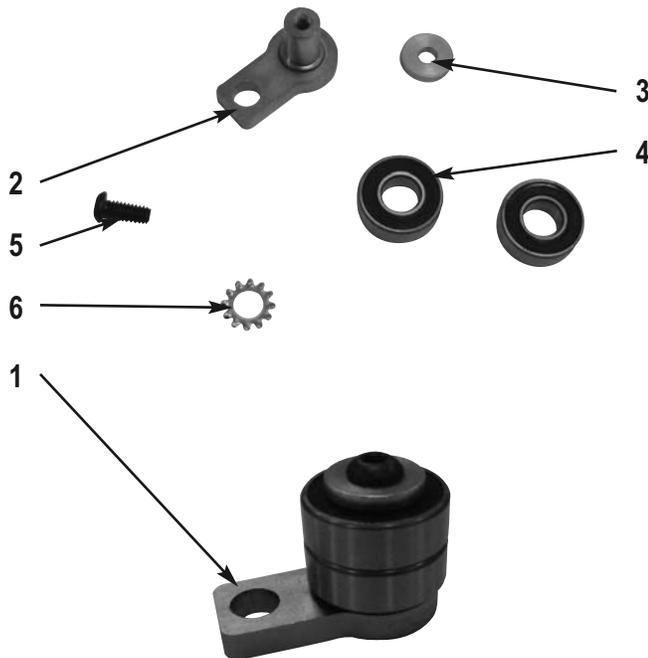
# Parts List and Diagrams

## PUMP DRIVE ASSEMBLY



	PART#	DESCRIPTION	QTY
1	6280-114B	PUMP DRIVE ASSEMBLY, SPLINED	1
2	6280-103A	SNAP RING	1
3	6280-115	SHEAVE, PUMP	1
4	6280-1151	RETAINER, PUMP SHEAVE W/HARDWARE	1
5	6280-116A	SHAFT, SPLINE PUMP	1
6	73101	SPACER, ID 1/8X1-1/4ODX1"	1

## IDLER ASSEMBLY

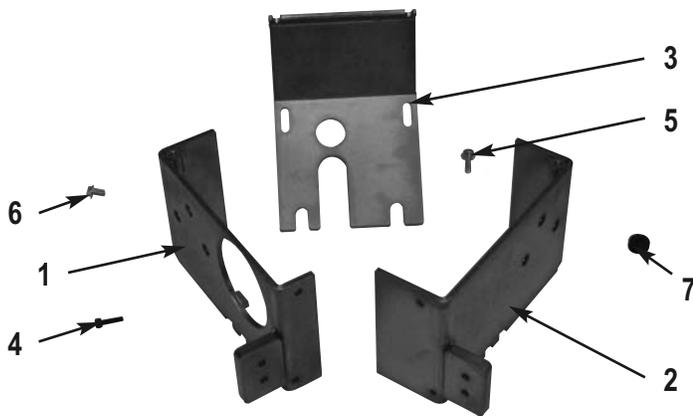


	PART#	DESCRIPTION	QTY
1	6280-125	IDLER ASSEMBLY, COMPLETE	1
2	6280-125W	BRACKET AND PIN, IDLER MOUNT	1
3	6280-126A	CAP, IDLER BEARING	1
4	71072	BEARING, 1/2 ID DCTN-1616	2
5	73003	SCREW, BH SOCKET CAP 1/4-20X5/8	1
6	73215	WASHER, EXTERNAL LOCK 3/8	1

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

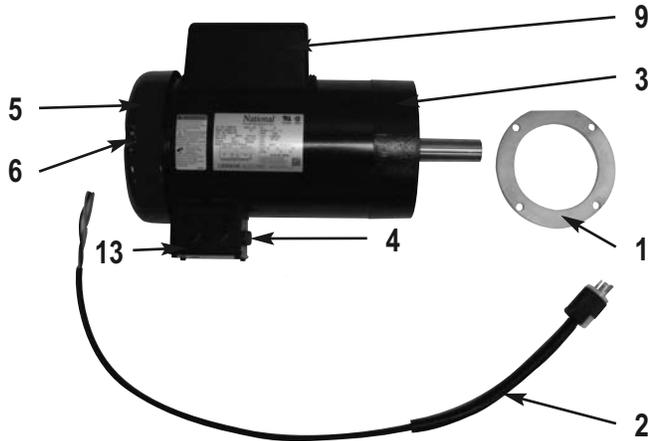
# Parts List and Diagrams

## BODY ASSEMBLY



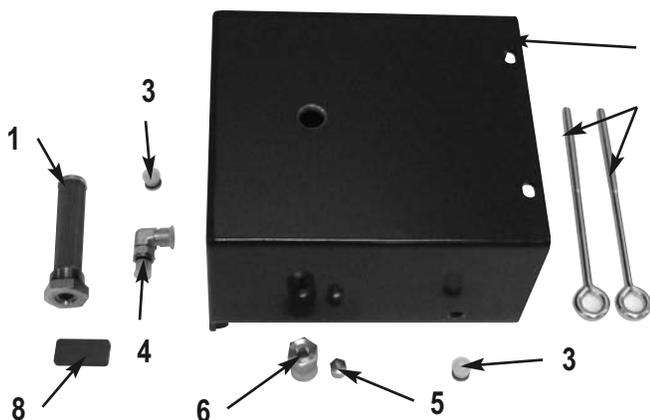
PART#	DESCRIPTION	QTY	
1	6280-156L	BODY, MAIN, UPPER, LEFT	1
2	6280-156R	BODY, MAIN, UPPER, RIGHT	1
3	6280-139	COVER, REAR	1
4	73311	SCREW, SH CAP, GRADE 5 5/16-18X1	4
5	73222	BOLT, FLANGE 3/8-16X1	4
6	73318	BOLT, WIZLOCK FLANGE 5/16-18X5/8	2
7	74763	GROMMET, RUBBER 1/2"	1

## MOTOR PARTS



PART#	DESCRIPTION	QTY	
1	6280-179	RING, MOTOR SPACER	1
2	72554	CORD, MOTOR	1
3	72365	MOTOR, 115 VOLT, 1.5 HP	1
4	72461	SWITCH THERMO OVERLOAD	1
5	400001	COVER, MOTOR FAN	1
6	6280-148A	SCREW, FAN COVER, HEX HEAD 8-32X3/8	3
7	6280-147-1	SWITCH, STARTER	1
8	6280-147-2	ACTUATOR, STARTER SWITCH	1
9	6280-150	COVER, CAPACITOR	1
10	6280-151A	CAPACITOR, MOTOR RUN	1
11	6280-151B	CAPACITOR, MOTOR START	1
12	6280-152	BOX, MOTOR JUNCTION	1
13	6280-152-1	COVER, MOTOR JUNCTION BOX	1
14	6280-152-2	SCREW, MTR JUCTN BOX CVR	6
15	6280-152-3	GASKET, COVER ONLY	1
16	6280-152-4	GASKET, JUNCTION BOX FRAME	1

## TANK PARTS

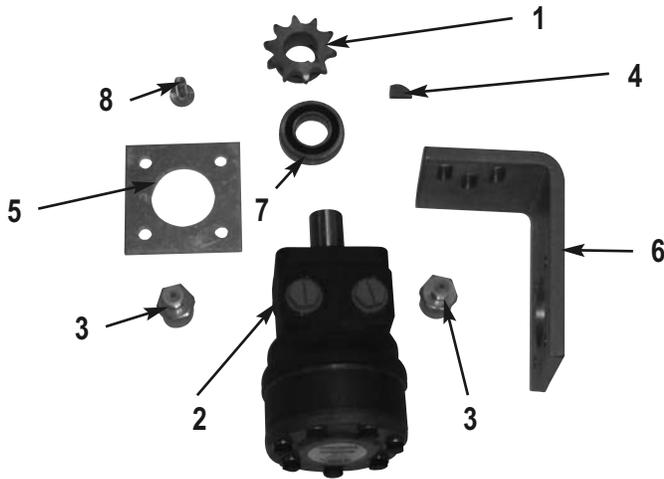


PART#	DESCRIPTION	QTY	
1	70601	STRAINER, TANK MOUNTED	1
2	73228	EYE BOLT, 3/8-16X8	2
3	6280-214	PLUG, DRAIN, OIL LEVEL	2
4	72816	FITTING, ELBOW, 90 DEGREE, 3/8"	1
5	6280-161B	PLUG, VENT, FILLER CAP	1
6	6280-161D	PLUG, FILLER PORT	1
7	6280-162	TANK, HYDRAULIC	1
8	6280-162G	TANK, MAGNET	1

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

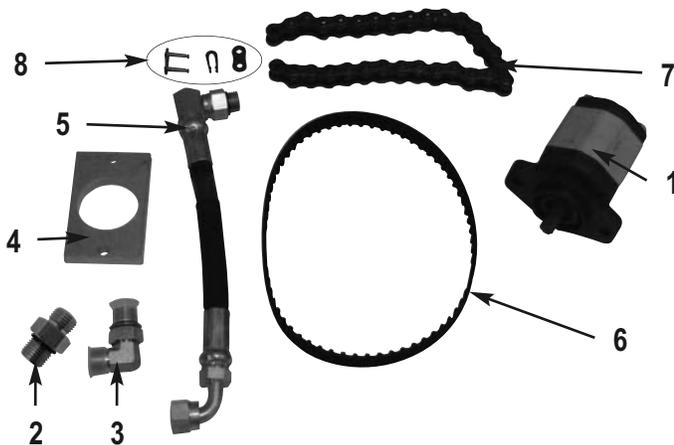
# Parts List and Diagrams

## HYDRAULIC MOTOR ASSEMBLY



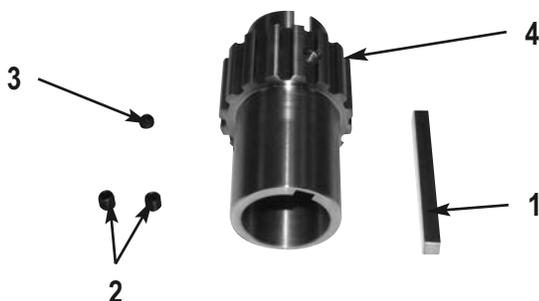
PART#	DESCRIPTION	QTY
1	6280-104 SPROCKET, AXLE	1
2	6280-220A MOTOR, HYDRAULIC	1
3	6280-221 CONNECTOR, HYRDAULIC MOTOR	2
4	6280-223 KEY, SHAFT, HYDRAULIC MOTOR	1
5	6280-225 SPACER, HYDRAULIC MOTOR	1
6	6280-226 BRACKET, MOUNTING, HYDRAULIC MOTOR	1
7	71115 BEARING, 1X2X1/2	1
8	73222 BOLT, FLANGE 3/8-16X1	4

## PUMP ASSEMBLY



PART#	DESCRIPTION	QTY
1	6280-113S PUMP, SPLINE, #4	1
2	6280-117 FITTING, PUMP	1
3	6280-118 FITTING, SUCTION HOSE TO PUMP	1
4	6280-119 SPACER, PUMP	1
5	6280-120 HOSE, SUCTION	1
6	6280-124 BELT, PUMP DRIVE, DD12	1
7	6280-228 CHAIN, DRIVE	1
8	6280-229 LINK, MASTER, DRIVE CHAIN	1

## ECCENTRIC ASSEMBLY

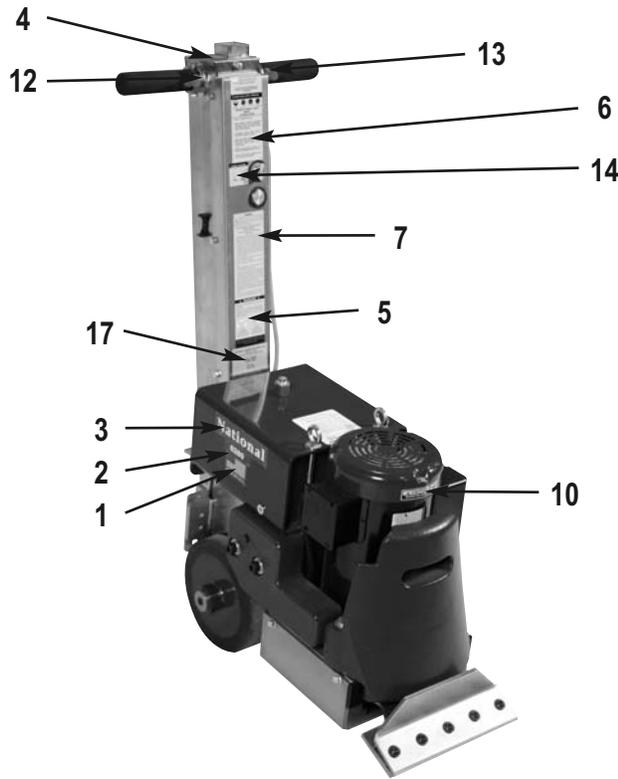


PART#	DESCRIPTION	QTY
1	6280HD-131 KEY, ECCENTRIC	1
2	73010 SCREW, SET 1/4-20X1/4	2
3	73039 SCREW, CUP POINT SCKET SET 1/4-20X3/16	1
4	6280-405 ECCENTRIC	1

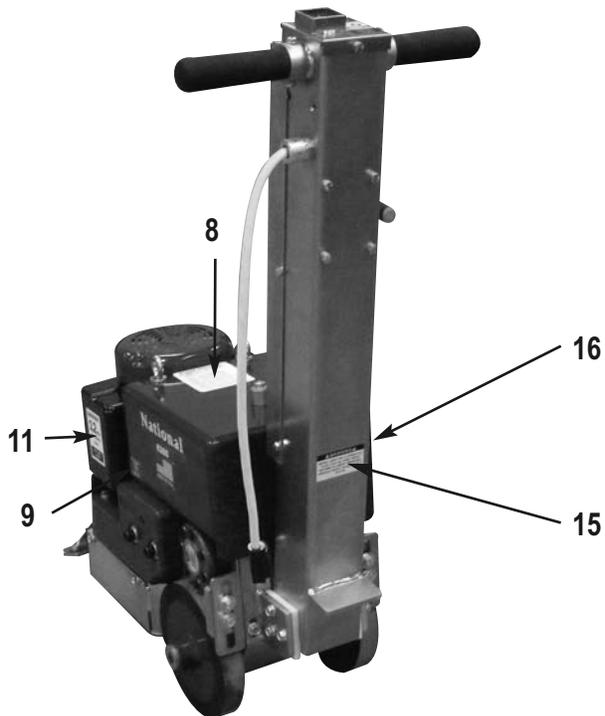
**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

# Parts List and Diagrams

## LABELS



PART#	DESCRIPTION	QTY
1	L141 LABEL, FLAG MADE IN US	2
2	L173B LABEL, NATIONAL 6280	2
3	L175 LABEL, NATIONAL, SMALL	2
4	L186 LABEL, ON/OFF SWITCH	1
5	L187 LABEL, REMOVE CENTER WEIGHT HD	1
6	L188 LABEL, CAUTION GEN INFO	1
7	L189 LABEL, ASBESTOS HD	1
8	L220 LABEL, BLADE SETTING	1
9	L223 LABEL, PATENT NUMBER	1
10	L37 LABEL, CAUTION SHARP BLDS	1
11	L49 LABEL, CORD CAUTION	1
12	L95C LABEL, FORWARD	1
13	L95D LABEL, REVERSE	1
14	L95E LABEL, SPEED CONTROL	1
15	L95F LABEL, FLUID LEAK	1
16	L95G LABEL, FLUID LEVEL (NOT VISIBLE)	1
17	L95G LABEL, SERIAL NUMBER	1



**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

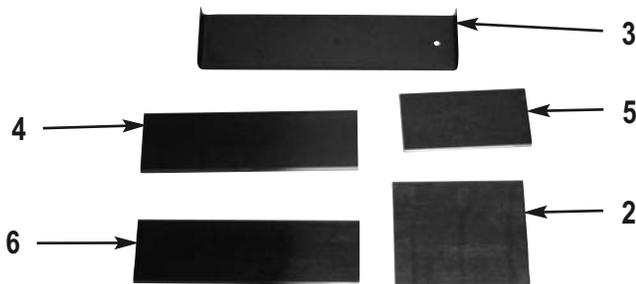
# Parts List and Diagrams

## FRONT CASTER WHEELS



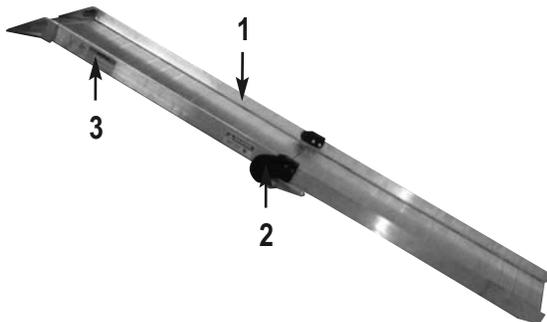
PART#	DESCRIPTION	QTY
1 6280-299	WHEEL ASSEMBLY, FRONT	1
2 6280-300	BRACKET, TRANSPORT WHEEL	1
3 6280-301	WHEEL, ONLY, FRONT TRANSPORT	2
4 73402	NUT, NYLOCK 1/2-13	2
5 73425	WASHER, FLAT USS ZINC 1/2	2
6 L95H	LABEL, CAUTION DO NOT	1

## BLADE PACKAGE



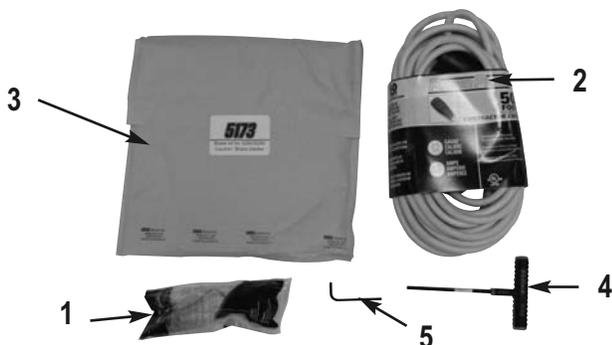
PART#	DESCRIPTION	QTY
1 5173	KIT, BLADES, 5280 AND 6280	1
2 148	BLADE, 5"X6"	1
3 6258-BU	BLADE, SELF SCORING 3"X12"	1
4 6286	BLADE, HEAVY DUTY 3"X10"	1
5 7050-200	BLADE, PREMIUM HIGH TEMP 3"X6"	1
6 7050-202	BLADE, PREMIUM HIGH TEMP 3"X10"	1

## RAMP



PART#	DESCRIPTION	QTY
1 6251	RAMP, LOADING	1
2 6251-1	SET, PINCH POINT GUARD	1
3 L95K	LABEL, RAMP	2

## STARTER PACKAGE



PART#	DESCRIPTION	QTY
1 1009	GLASSES, SAFETY	1
2 6254	CORD, EXTENSION, 50FT	1
3 5173	KIT, BLADES, 5280 AND 6280	1
4 6280-401B	WRENCH, ALLEN, 7/32	1
5 73906	WRENCH, ALLEN, 3/16	1

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

# Parts List and Diagrams

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## SIDE SLIDE WEIGHTS - OPTIONAL

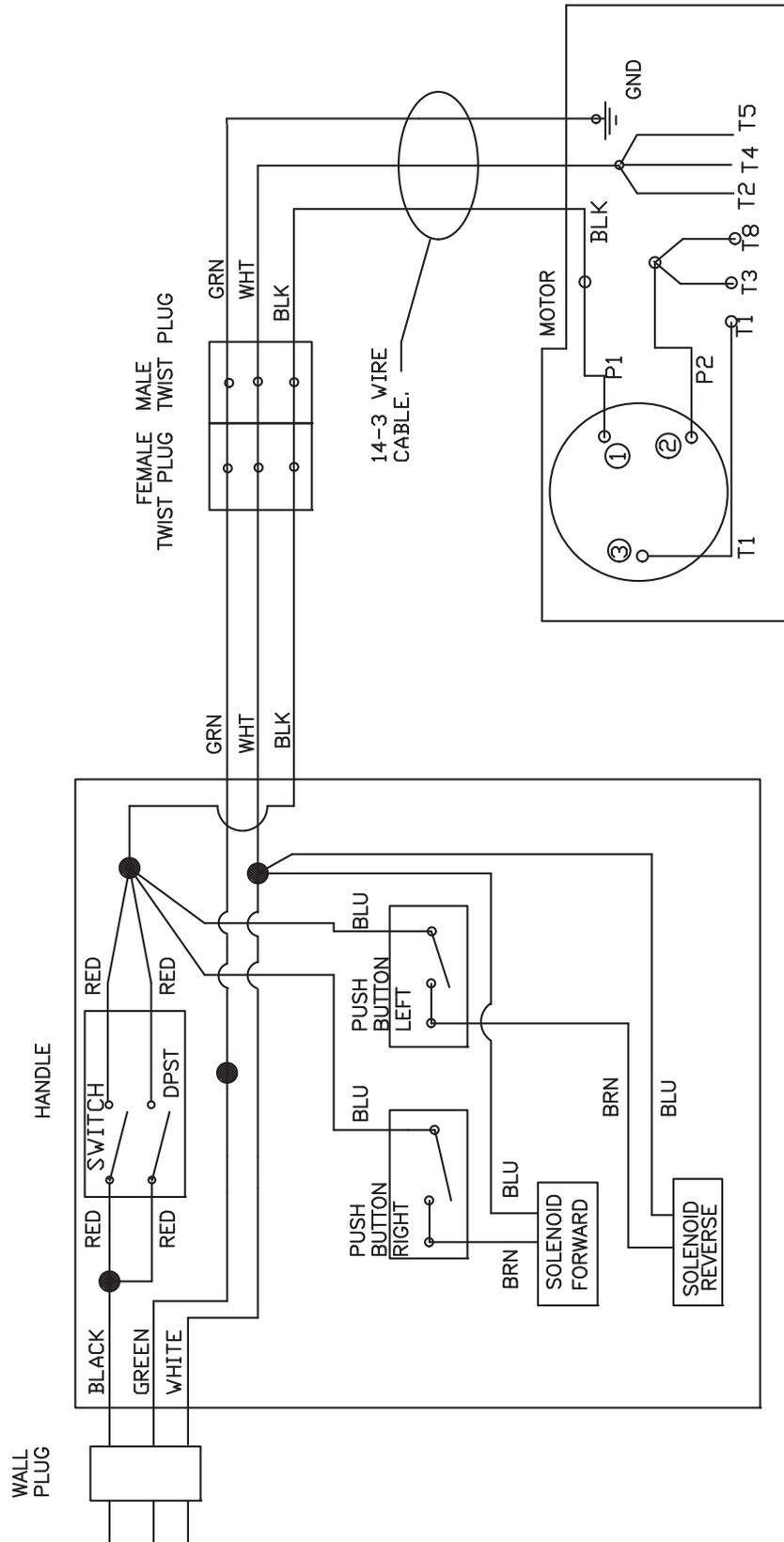


	<b>PART#</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	6280-320	KIT, SLIDE WEIGHT	1
2	74851	WEIGHT, SLIDE, 47 LB EACH	2
3	73424	WASHER, FLAT, ZINC SAE 1/2	2
4	73417	BOLT, HEXHEAD CAP 1/2-13X4	2
5	73403	WASHER, SPLIT LOCK 1/2	2

**\*\*PARTS ARE SOLD INDIVIDUALLY. PLEASE NOTE THE QUANTITY NEEDED WHEN ORDERING\*\***

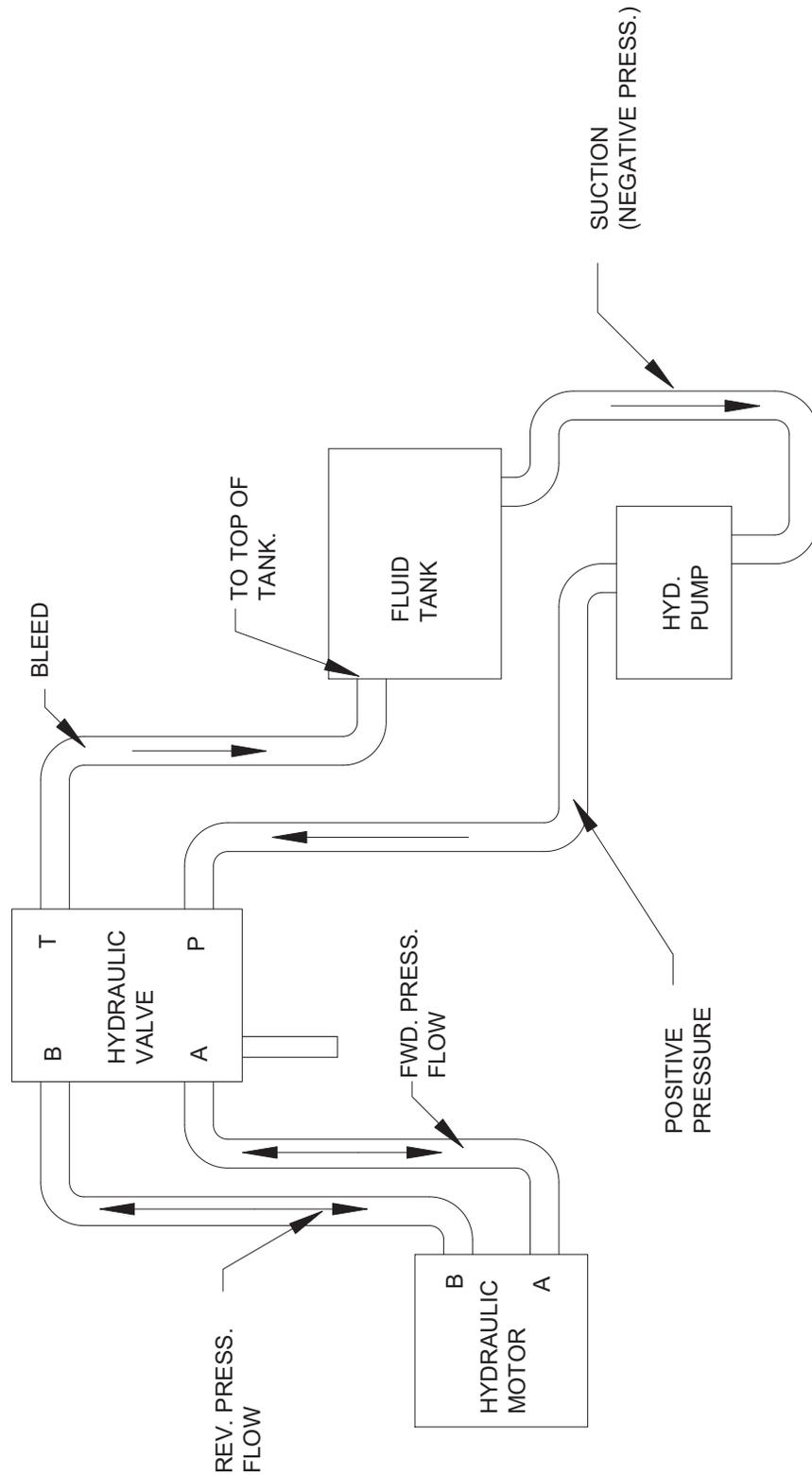
# Parts List and Diagrams

## 6280 WIRING DIAGRAM



# Parts List and Diagrams

## 6280 HYDRAULIC LINE DIAGRAM



# Material Safety Data Sheet (MSDS) Information

## CHEVRON HD 22 - 68 - HYDRAULIC FLUID

### PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION

**Product Number(S):** CPS221655, CPS221658, CPS221659  
**Synonyms:** Texaco Rando HD22, Texaco Rando HD 32, Texaco Rando HD 46, Texaco Rando HD 68

#### Company Information

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

### Transportation Emergency Response

**CHEMTREC:** (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency Information Center: Located in the USA.

International collect calls accepted.

(800) 231-0623 or (510) 231-0623

### Product Information

email: lubemsds@chevron.com

Product Information: 800-LUBE-TEK

MSDS Requests: 800-414-6737

### HAZARDOUS INGREDIENTS / IDENTIFY INFORMATION

MATERIALS / COMPONENTS	CAS NUMBER	AMOUNT
HIGHLY REFINED MINERAL OIL (C15 - C50)	mixture	90-100% weight

### HAZARDS IDENTIFICATION

#### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

#### FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

#### FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

**FIRE CLASSIFICATION:** OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

#### FLAMMABLE PROPERTIES:

Flashpoint: (Cleveland Open Cup) 150 C (302 F) (Min)

Autoignition: No Data Available

Flammability (Explosive) Limits (% by volume in the air): Lower: Not Applicable Upper: Not Applicable

# Material Safety Data Sheet (MSDS) Information

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## CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:** Fire Fighting instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

### ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

### HANDLING AND STORAGE

**Precautionary Measures:** DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water. : Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be a necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

### EXPOSURE CONTROLS/PERSONAL PROTECTION

**GENERAL CONSIDERATIONS:** Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**ENGINEERING CONTROLS:** Use in a well-ventilated area.

#### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

# Material Safety Data Sheet (MSDS) Information

## CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

### PHYSICAL AND CHEMICAL PROPERTIES

Attention: The data below are typical values and do not constitute a specification.

<b>Color:</b> Yellow	<b>Physical State:</b> Liquid	<b>Odor:</b> Petroleum odor
<b>pH:</b> Not applicable	<b>Vapor Pressure:</b> <0.01 mmHg @ 37.8 C (100 F)	<b>Vapor Density (Air = 1):</b> >1
<b>Boiling Point:</b> >315.6 C (600 F)	<b>Solubility:</b> Soluble in hydrocarbons; insoluble in water	<b>Freezing Point:</b> Not Applicable
<b>Melting Point:</b> Not Applicable	<b>Specific Gravity:</b> 0.86 - 0.87 @ 15.6 C (60.1 F) / 15.6 (60.1F)	<b>Density:</b> 0.86 kg/l - 0.9 kg/l @ 15 C (59 F)
<b>Viscosity:</b> 22 cSt - 61.2 cSt @40 C (104 F) (Min)		

### STABILITY AND REACTIVITY

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** None known. (None expected)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### TOXICOLOGICAL INFORMATION

#### IMMEDIATE HEALTH EFFECTS

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** No product toxicology data available.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

### ADDITIONAL TOXICOLOGY INFORMATION

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have been classified by the International Agency for Research on Cancer (IARC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance (A3).

### ECOLOGICAL INFORMATION

#### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components of a similar material.

#### ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

### DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle is possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

### TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING OIL, NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR Additional Information: NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

# Material Safety Data Sheet (MSDS) Information

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## CHEVRON HD 22 - 68 - HYDRAULIC FLUID (CONTINUED)

### REGULATORY INFORMATION

#### EPCRA 311/312 CATAGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazzard: NO

#### REGULATORY LISTS SEARCHED:

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group1    | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2  | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |

No components of this material were found on the regulatory lists above.

#### CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirments: AICS (Australia), DSL (Canada), ENCS (Japan), IECSC (China), KECl (Korea), PICCS (Philippines), TSCA (United States)

One or more components is listed on ELINCS (European Union). Secondary notification by the importer may be required.

#### NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Hydraulic oil)

#### WHMIS CLASSIFICATION:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

#### OTHER INFORMATION

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation,\*-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:** Label Category: INDUSTRIAL OIL 1 - IND1

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet:

**Revision Date:** January 15, 2007

#### ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

- |  |  |
|--|--|
| TLV - Threshold Limit Value                                    | TWA - Time weighted Average                            |
| STEL - Short-term Exposure Llimit                              | PEL - Permissible Exposure Limit                       |
| CAS - Chemical Abstract Service Number                         | IMD?IMDG - International Maritime Dangerous Goods Code |
| API - American Petroleum Institute                             | MSDS - Material Safety Data Sheet                      |
| ACGIH - American Confrence of Government Industrial Hygienists | CVX - Chevron  |
| NFPA - National Fire Protection Association (USA)              | DOT - Department of Transportation                     |
| NFPA - NationalToxicology Program(USA)                         | IARC - International Agency for Research on Cancer     |
| OSHA - Occupational Safety and Health Administration           |  |

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Stanard (Z400.1) by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receivbing it shall make his own determintion of the suitability of the material for his particular purpose.

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (**6280 Self-Propelled Scraper**), when shipped in its original container, will be free from defective workmanship and materials and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the product, to the additional excluded items set forth below, or to any product, the exterior of which has been damaged or defaced, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to National.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIODS FROM THE DATE OF PURCHASE AS SET FORTH BELOW. Some states do not allow time limitations on an implied warranty, so the above limitation may not apply to you.

Neither the sales person of the seller, nor any other person, is authorized to make any other warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of National.

The warranties described herein shall be the sole and exclusive warranties granted by National and shall be the sole and exclusive remedy available to the purchaser. Correction of defects in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of National to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall National be liable, or in any way responsible for any damage or defects in the product which were caused by repairs or attempted repairs performed by anyone other than National. Nor shall National be liable, or in any way responsible, for any incidental or consequential, economics or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

## **WARRANTY PERIOD**

The **6280 Self-Propelled Scraper** is guaranteed to be free of manufacturer defective workmanship and in quality of materials for a period of one year.

Items excluded from warranty coverage, unless found and reported defective immediately upon removal from the original shipping container and before being used by the original purchaser.

A freight damage claim must be filed with the carrier by the purchaser, the shipper cannot file the freight claim.

**TO OBTAIN SERVICE CONTACT NATIONAL FLOORING EQUIPMENT, INC. TOLL FREE AT 800-245-0267 FOR A REPAIR AUTHORIZATION NUMBER. COD FREIGHT RETURNS WILL NOT BE ACCEPTED. FREIGHT COLLECT SHIPMENTS WILL NOT BE ACCEPTED. WARRANTY REPAIRS MUST BE ACCOMPANIED BY DATE OF PURCHASE RECEIPT AND A RETURN/REPAIR AUTHORIZATION NUMBER.**

**RETURN/REPAIR AUTHORIZATION NUMBER:** \_\_\_\_\_

**MACHINE SERIAL NUMBER:** \_\_\_\_\_



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